

# **Tom Swift And His Photo Telephone**

Victor Appleton



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# Tom Swift And His Photo Telephone

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TOM SWIFT AND HIS PHOTO TELEPHONE  
OR THE PICTURE THAT SAVED A FORTUNE

## CHAPTER I. A MAN ON THE ROOF

"Tom, I don't believe it can be done!"

"But, Dad, I'm sure it can!"

Tom Swift looked over at his father, who was seated in an easy chair in the library. The elderly gentleman—his hair was quite white now—slowly shook his head, as he murmured again:

"It can't be done, Tom! It can't be done! I admit that you've made a lot of wonderful things—things I never dreamed of—but this is too much. To transmit pictures over a telephone wire, so that persons cannot only see to whom they are talking, as well as hear them—well, to be frank with you, Tom, I should be sorry to see you waste your time trying to invent such a thing."

"I don't agree with you. Not only do I think it can be done, but I'm going to do it. In fact, I've already started on it. As for wasting my time, well, I haven't anything in particular to do, now that my giant cannon has been perfected, so I might as well be working on my new photo telephone instead of sitting around idle."

"Yes, Tom, I agree with you there," said Mr. Swift. "Sitting around idle isn't good for anyone—man or boy, young or old. So don't think I'm finding fault because you're busy."

"It's only that I don't want to see you throw away your efforts, only to be disappointed in the end. It can't be done, Tom, it can't be done," and the aged inventor shook his head in pitying doubt.

Tom only smiled confidently, and went on:

"Well, Dad, all you'll have to do will be to wait and see. It isn't going to be easy—I grant that. In fact, I've run up against more snags, the little way I've gone so far, than I like to admit. But I'm going to stick at it, and before this year is out I'll guarantee, Father, that you can be at one end of the telephone wire, talking to me, at the other, and I'll see you and you'll see me—if not as plainly as we see each other now, at least plainly enough to make sure of each other."

Mr. Swift chuckled silently, gradually breaking into a louder laugh. Instead of being angry, Tom only regarded his father with an indulgent smile, and continued:

"All right, Dad. Go ahead, laugh!"

"Well, Tom, I'm not exactly laughing at YOU—it's more at the idea than anything else. The idea of talking over a wire and, at the same time, having light waves, as well as electrical waves passing on the same conductor!"

"All right, Dad, go ahead and laugh. I don't mind," said Tom, good-naturedly. "Folks laughed at Bell, when he said he could send a human voice over a copper spring; but Bell went ahead and to-day we can talk over a thousand miles by wire. That was the telephone."

"Folks laughed at Morse when he said he could send a message over the wire. He let 'em laugh, but we have the telegraph. Folks laughed at Edison, when he said he could take the human voice—or any other sound—and fix it on a wax cylinder or a hard-rubber plate—but he did it, and we have the phonograph. And folks laughed at Santos Dumont, at the Wrights, and at all the other fellows, who said they could take a heavier-than-air machine, and skim above the clouds like a bird; but we do it—I've done it—you've done it."

"Hold on, Tom!" protested Mr. Swift. "I give up! Don't rub it in on your old dad. I admit that folks did laugh at those inventors, with their seemingly impossible schemes, but they made good. And you've made good lots of times where I thought you wouldn't. But just stop to consider for a moment. This thing of sending a picture over a telephone wire is totally out of the question, and entirely opposed to all the principles of science."

"What do I care for principles of science?" cried Tom, and he strode about the room so rapidly that Eradicate, the old colored servant, who came in with the mail, skipped out of the library with the remark:

"Deed, an' Massa Tom must be pow'fully preragitated dis mawnin'!"

"Some of the scientists said it was totally opposed to all natural laws when I planned my electric rifle," went on Tom. "But I made it, and it shot. They said my air glider would never stay up, but she did."

"But, Tom, this is different. You are talking of sending light waves—one of the most delicate forms of motion in the world—over a material wire. It can't be done!"

"Look here, Dad!" exclaimed Tom, coming to a halt in front of his parent. "What is light, anyhow? Merely another form of motion; isn't it?"

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"Well, yes, Tom, I suppose it is."

"Of course it is," said Tom. "With vibrations of a certain length and rapidity we get sound—the faster the vibration per second the higher the sound note. Now, then, we have sound waves, or vibrations, traveling at the rate of a mile in a little less than five seconds; that is, with the air at a temperature of sixty degrees. With each increase of a degree of temperature we get an increase of about a foot per second in the rapidity with which sound travels."

"Now, then, light shoots along at the rate of 186,000,000 miles a second. That is more than many times around the earth in a second of time. So we have sound, one kind of wave motion, or energy; we have light, a higher degree of vibration or wave motion, and then we come to electricity—and nobody has ever yet exactly measured the intensity or speed of the electric vibrations."

"But what I'm getting at is this—that electricity must travel pretty nearly as fast as light—if not faster. So I believe that electricity and light have about the same kind of vibrations, or wave motion."

"Now, then, if they do have—and I admit it's up to me to prove it," went on Tom, earnestly—"why can't I send light-waves over a wire, as well as electrical waves?"

Mr. Swift was silent for a moment. Then he said, slowly:

"Well, Tom, I never heard it argued just that way before. Maybe there's something in your photo telephone after all. But it never has been done. You can't deny that!"

He looked at his son triumphantly. It was not because he wanted to get the better of him in argument, that Mr. Swift held to his own views; but he wanted to bring out the best that was in his offspring. Tom accepted the challenge instantly.

"Yes, Dad, it has been done, in a way!" he said, earnestly. "No one has sent a picture over a telephone wire, as far as I know, but during the recent hydroplane tests at Monte Carlo, photographs taken of some of the events in the morning, and afternoon, were developed in the evening, and transmitted over five hundred miles of wire to Paris, and those same photographs were published in the Paris newspapers the next morning."

"Is that right, Tom?"

"It certainly is. The photographs weren't so very clear, but you could make out what they were. Of course that is a different system than the one I'm thinking of. In that case they took a photograph, and made a copper plate of it, as they would for a half-tone illustration. This gave them a picture with ridges and depressions in copper, little hills and valleys, so to speak, according to whether there were light or dark tints in the picture. The dark places meant that the copper lines stood up higher there than where there were light colors."

"Now, by putting this copper plate on a wooden drum, and revolving this drum, with an electrical needle pressing lightly on the ridges of copper, they got a varying degree of electrical current. Where the needle touched a high place in the copper plate the contact was good, and there was a strong current. When the needle got to a light place in the copper—a depression, so to speak—the contact was not so good, and there was only a weak current."

"At the receiving end of the apparatus there was a sensitized film placed on a similar wooden drum. This was to receive the image that came over the five hundred miles of wire. Now then, as the electrical needle, moving across the copper plate, made electrical contacts of different degrees of strength, it worked a delicate galvanometer on the receiving end. The galvanometer caused a beam of light to vary—to grow brighter or dimmer, according as the electrical current was stronger or weaker. And this light, falling on the sensitive plate, made a picture, just like the one on the copper plate in Monte Carlo."

"In other words, where the copper plate was black, showing that considerable printing ink was needed, the negative on the other end was made light. Then when that negative was printed it would come out black, because more light comes through the light places on a photograph negative than through the dark places. And so, with the galvanometer making light flashes on the sensitive plate, the galvanometer being governed by the electrical contacts five hundred miles away, they transmitted a photograph by wire."

"But not a telephone wire, Tom."

"That doesn't make any difference, Dad. It was a wire just the same. But I'm not going into that just now, though later I may want to send photographs by wire. What I'm aiming at is to make an apparatus so that when you go into a telephone booth to talk to a friend, you can see him and he can see you, on a specially prepared plate that will be attached to the telephone."

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"You mean see him as in a looking-glass, Tom?"

"Somewhat, yes. Though I shall probably use a metal plate instead of glass. It will be just as if you were talking over a telephone in an open field, where you could see the other party and he could see you."

"But how are you going to do it, Tom?"

"Well, I haven't quite decided. I shall probably have to use the metal called selenium, which is very sensitive to light, and which makes a good or a poor electrical conductor according as more or less light falls on it. After all, a photograph is only lights and shadows, fixed on sensitive paper or films."

"Well, Tom, maybe you can do it, and maybe you can't. I admit you've used some good arguments," said Mr. Swift. "But then, it all comes down to this: What good will it be if you can succeed in sending a picture over a telephone wire?"

"What good, Dad? Why, lots of good. Just think how important it will be in business, if you can make sure that you are talking to the party you think you are. As it is now, unless you know the person's voice, you can't tell that the man on the other end of the wire is the person he says he is. And even a voice can be imitated."

"But if you know the person yourself, he can't be imitated. If you see him, as well as hear his voice, you are sure of what you are doing. Why, think of the big business deals that could be made over the telephone if the two parties could not only hear but see each other. It would be a dead sure thing then. And Mr. Brown wouldn't have to take Mr. Smith's word that it was he who was talking. He could even get witnesses to look at the wire-image if he wanted to, and so clinch the thing. It will prevent a lot of frauds."

"Well, Tom, maybe you're right. Go ahead. I'll say no more against your plans. I wish you all success, and if I can help you, call on me."

"Thanks, Dad. I knew you'd feel that way when you understood. Now I'm going—"

But what Tom Swift was going to do he did not say just then, for above the heads of father and son sounded a rattling, crashing noise, and the whole house seemed to shake. Then the voice of Eradicate was heard yelling:

"Good land! Good land ob massy! Come out yeah, Massa Tom! Come right out yeah! Dere's a man on de roof an' he am all tangled up suthin' scandalous! Come right out yeah befo' he falls and translocates his neck! Come on!"

## CHAPTER II. BAD NEWS

With startled glances at each other, Tom and his father rushed from the library to the side of the house, whence came the cries of Eradicate.

"What is it, Rad! what is it?" questioned Tom.

"Is someone hurt?" Mr. Swift wanted to know.

"He mighty soon will be!" exclaimed the colored man. "Look where he am holdin' on! Lucky fo' him he grabbed dat chimbley!"

Tom and his father looked to where Eradicate pointed, and saw a strange sight. A small biplane-airship had become entangled in some of the aerials of Tom's wireless apparatus, and the craft had turned turtle, being held from falling by some of the wire braces.

The birdman had fallen out, but had managed to cling to the chimney, so that he had not reached the ground, and there he clung, while the motor of his airship was banging away, and revolving the propeller blades dangerously close to his head.

"Are you hurt?" cried Tom, to the unknown birdman.

"No, but I'm likely to be unless I get out of here!" was the gasped-out answer.

"Hold fast!" cried Tom. "We'll have you down in a jiffy. Here, Rad, you get the long ladder. Where's Koku? That giant is never around when he's wanted. Find Koku, Rad, and send him here."

"Yas, sah, Massa Tom; directly, sah!" and the colored man hastened off as fast as his aged legs would take him.

And while preparations are thus under way to rescue the birdman from the roof, I will take just a few minutes to tell you a little something more about Tom Swift and his numerous inventions, as set forth in the previous books of this series.

"Tom Swift and His Motor Cycle" was the first book, and in that I related how Tom made the acquaintance of a Mr. Wakefield Damon, of the neighboring town of Waterford, and how Tom bought that gentleman's motor cycle, after it had tried to climb a tree with its rider in the saddle. Mr. Wakefield Damon was an odd man, whose favorite expression was "Bless my shoelaces!" or something equally absurd. Waterford was not far from Shopton, where Tom and his father made their home.

Mr. Swift was also an inventor of note, and Tom soon followed in his father's footsteps. They lived in a large house, with many shops about it, for their work at times required much machinery.

Mrs. Baggert was the housekeeper who looked after Tom and his father, and got their meals, when they consented to take enough time from their inventive work to eat. Another member of the household was Eradicate Sampson, a genial old colored man, who said he was named Eradicate because he used to eradicate the dirt about the place.

Koku, just referred to by Tom, was an immense man, a veritable giant, whom Tom had brought back with him from one of his trips, after escaping from captivity. The young inventor really brought two giants, brothers they were, but one had gone to a museum, and the other took service with our hero, making himself very useful when it came to lifting heavy machinery.

Tom had a close friend in Ned Newton, who was employed in the Shopton bank. Another friend was Miss Mary Nestor, a young lady whose life Tom had once saved. He had many other friends, and some enemies, whom you will meet from time to time in this story.

After Tom had had many adventures on his motor cycle he acquired a motor boat, and in that he and Ned went through some strenuous times on Lake Carlopa, near Tom's home. Then followed an airship, for Tom got that craze, and in the book concerning that machine I related some of the things that happened to him. He had even more wonderful adventures in his submarine, and with his electric runabout our hero was instrumental in saving a bank from ruin by making a trip in the speediest car on the road.

After Tom Swift had sent his wireless message, and saved the castaways of Earthquake Island, he thought he would give up his inventive work for a time, and settle down to a life of ease and quiet.

But the call of the spirit of adventure was still too strong for him to resist. That was why he sought out the

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diamond makers, and learned the secret of Phantom Mountain. And when he went to the Caves of Ice, and there saw his airship wrecked, Tom was well-nigh discouraged, But he managed to get back to civilization, and later undertook a journey to elephant land, with his powerful electric rifle.

Marvelous adventures underground did Tom Swift have when he went to the City of Gold, and I have set down some of them in the book bearing the latter title. Later on he sought the platinum treasure in his air glider. And when Tom was taken captive, in giant land, only his speedy airship saved him from a hard fate.

By this time moving pictures were beginning to occupy a large place in the scientific, as well as the amusement world, and Tom invented a Wizard Camera which did excellent work. Then came the need of a powerful light, to enable Uncle Sam's custom officers on the border to detect the smugglers, and Tom was successful in making his apparatus.

He thought he would take a rest after that, but with the opening of the Panama Canal came the need of powerful guns to protect that important waterway, and Tom made a Giant Cannon, which enabled the longest shots on record to be fired.

Now, some months had passed, after the successful trial of the big weapon, and Tom longed for new activities. He found them in the idea of a photo telephone, and he and his father were just talking of this when interrupted by the accident to the birdman on the roof of the Swift home.

"Have you got that ladder, Rad?" cried the young inventor, anxiously, as he saw the dangerous position of the man from the airship.

"Yas, sah, Massa Tom! I'se a-camin' wif it!"

"And where's Koku? We'll need him!"

"He's a-camin', too!"

"Here Koku!" exclaimed a deep voice, and a big man came running around the corner of the house. "What is it, Master?"

"We must get him down, Koku!" said Tom, simply. "I will go up on the roof. You had better come, too. Rad, go in the house and get a mattress from the bed. Put it down on the ground where he's likely to fall. Lively now!"

"Yas, sah, Massa Tom!"

"Me git my own ladder—dat one not strong 'nuff!" grunted Koku, who did not speak very good English. He had a very strong ladder, of his own make, built to hold his enormous bulk, and this he soon brought and placed against the side of the house.

Meanwhile Tom and his father had raised the one Eradicate had brought, though Tom did most of the lifting, for his father was elderly, and had once suffered from heart trouble.

"We're coming for you!" cried the young inventor as he began to ascend the ladder, at the same time observing that the giant was coming with his. "Can you hold on a little longer?"

"Yes, I guess so. But I dare not move for fear the propellers will strike me."

"I see. I'll soon shut off the motor," said Tom. "What happened, anyhow?"

"Well, I was flying over your house. I was on my way to pay you a visit, but I didn't intend to do it in just this way," and the birdman smiled grimly. "I didn't see your wireless aerials until I was plumb into them, and then it was too late. I hope I haven't damaged them any."

"Oh, they are easily fixed," said Tom. "I hope you and your biplane are not damaged. This way, Koku!" he called to the giant.

"Say, is—is he real, or am I seeing things?" asked the aviator, as he looked at the big man.

"Oh, he's real, all right," laughed Tom. "Now, then, I'm going to shut off your motor, and then you can quit hugging that chimney, and come down."

"I'll be real glad to," said the birdman.

Making his way cautiously along the gutters of the roof, Tom managed to reach the motor controls. He pulled out the electrical switch, and with a sort of cough and groan the motor stopped. The big propellers ceased revolving, and the aviator could leave his perch in safety.

This he did, edging along until he could climb down and meet Tom, who stood near the ladder.

"Much obliged," said the birdman, as he shook hands with Tom. "My name is Grant Halling. I'm a newcomer in Mansburg," he added, naming a town not far from Shopton. "I know you by reputation, so you don't need to introduce yourself."

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"Glad to meet you," said the young inventor, cordially. "Rather a queer place to meet a friend," he went on with a laugh and a glance down to the ground. "Can you climb?"

"Oh, yes, I'm used to that. The next thing will be to get my machine down."

"Oh, we can manage that with Koku's help," spoke Tom. "Koku, get some ropes, and see what you and Rad can do toward getting the aeroplane down," he added to the giant. "Let me know if you need any help."

"Me can do!" exclaimed the big man. "Me fix him!"

Tom and Mr. Halling made their way down the ladder, while the giant proceeded to study out a plan for getting the airship off the roof.

"You say you were coming over to see me, when you ran into my wireless aerials?" asked Tom, curiously, when he had introduced his father to the birdman.

"Yes," went on Mr. Halling. "I have been having some trouble with my motor, and I thought perhaps you could tell me what was wrong. My friend, Mr. Wakefield Damon, sent me to you."

"What! Do you know Mr. Damon?" cried Tom.

"I've known' him for some years. I met him in the West, but I hadn't seen him lately, until I came East. He sent me to see you, and said you would help me."

"Well, any friend of Mr. Damon's is a friend of mine!" exclaimed Tom, genially. "I'll have a look at your machine as soon as Koku gets it down. How is Mr. Damon, anyhow? I haven't seen him in over two weeks."

"I'm sorry to say he isn't very well, Mr. Swift."

"Is he ill? What is the trouble?"

"He isn't exactly ill," went on Mr. Halling, "but he is fretting himself into a sickness, worrying over his lost fortune."

"His lost fortune!" cried Tom, in surprise at the bad news concerning his friend. "I didn't know he had lost his money!"

"He hasn't yet, but he's in a fair way to, he says. It's something about bad investments, and he did speak of the trickery of one man, I didn't get the particulars. But he certainly feels very badly over it."

"I should think he would," put in Mr. Swift. "Tom, we must look into this. If we can help Mr. Damon—"

"We certainly will," interrupted Tom. "Now come in the house, Mr. Halling. I'm sure you must be quite shaken up by your upset."

"I am, to tell you the truth, though it isn't the first accident I've had in my airship."

They were proceeding toward the house, when there came a cry from Koku, who had fastened a rope about the airship to lower it.

"Master! Master!" cried the giant. "The rope am slippin'. Grab the end of it!"

## CHAPTER III. TOM'S FAILURE

"Come on!" cried Tom, quickly, as, turning, he saw the accident about to happen. "Your craft will surely be smashed if she slips to the ground, Mr. Halling!"

"You're right! This seems to be my unlucky day!" The birdman, limping slightly from his fall, hurried with Tom to where a rope trailed on the ground. Koku had fastened one end to the airship, and had taken a turn of the cable about the chimney. He had been lowering the biplane to the ground, but he had not allowed for its great weight, and the rope had slipped from his big hands.

But Tom and Mr. Halling were just in time. They grabbed the slipping hempen strands, and thus checked the falling craft until Koku could get a better grip.

"All right now," said the giant, when he had made fast the rope. "Me fix now. Master can go."

"Think he can lower it?" asked Mr. Halling, doubtfully.

"Oh, surely," said Tom. "Koku's as strong as a horse. You needn't worry. He'll get it down all right. But you are limping."

"Yes, I jammed my leg a little."

"Don't you want a doctor?"

"Oh, no, not for a little thing like that."

But Tom insisted on looking at his new friend's wound, and found quite a cut on the thigh, which the young inventor insisted on binding up.

"That feels better," said the birdman, as he stretched out on a couch. "Now if you can look my machine over, and tell me what's the matter with it, I'll be much obliged to you, and I'll get on my way."

"Not quite so fast as that!" laughed Tom. "I wouldn't want to see you start off with your lame leg, and certainly I would not want to see you use your aircraft after what she's gone through, until we've given her a test. You can't tell what part you might have strained."

"Well, I suppose you are right. But I think I'd better go to a hotel, or send for an auto and go home."

"Now you needn't do anything of the kind," spoke Tom, hospitably. "We've got lots of room here, and for that matter we have plenty of autos and airships, too, as well as a motor boat. You just rest yourself here. Later we'll look over your craft."

After dinner, when Mr. Halling said he felt much better, Tom agreed to go out with him and look at the airship. As he feared, he found several things the matter with it, in addition to the motor trouble which had been the cause for Mr. Halling's call on the young inventor.

"Can she be fixed?" asked the birdman, who explained that, as yet, he was only an amateur in the practice of flying.

"Oh, yes, we can fix her up for you," said Tom. "But it will take several days. You'll have to leave it here."

"Well, I'll be glad to do that, for I know she will be all the better when you get through with her. But I think I am able to go on home now, and I really ought to. There is some business I must attend to."

"Speaking of business," remarked Tom, "can you tell me anything more of Mr. Damon's financial troubles?"

"No, not much. All I know is that when I called on him the other day I found him with his check book out, and he was doing a lot of figuring. He looked pretty blue and downcast, I can tell you."

"I'm sorry about that," spoke Tom, musingly. "Mr. Damon is a very good friend of mine, and I'd do anything to help him. I certainly wouldn't like to see him lose his fortune. Bad investments, you say it was?"

"Partly so, and yet I'm inclined to think if he does lose his money it will be due to some trickery. Mr. Damon is not the man to make bad investments by himself."

"Indeed he is not," agreed Tom. "You say he spoke of some man?"

"Yes, but not definitely. He did not mention any name. But Mr. Damon was certainly quite blue."

"That's unlike him," remarked Tom. "He is usually very jolly. He must be feeling quite badly. I'll go over and have a talk with him, as soon as I can."

"Do. I think he would appreciate it. And now I must see about getting home."

"I'll take you in one of my cars," said Tom, who had several automobiles. "I don't want to see you strain that

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injured leg of yours."

"You're very good—especially after I tangled up your wireless aerials; but I didn't see them until I was right into them," apologized Mr. Halling.

"They're a new kind of wire," said Tom, "and are not very plain to see. I must put up some warning signs. But don't worry about damaging them. They were only up temporarily anyhow, and I was going to take them down to arrange for my photo telephone."

"Photo telephone, eh? Is that something new?"

"It will be—if I can get it working," said Tom, with a smile.

A little later Tom had taken Mr. Halling home, and then he set about making arrangements for repairing the damaged airship. This took him the better part of a week, but he did not regret the time, for while he was working he was busy making plans for his newest invention—the photo telephone.

One afternoon, when Tom had completed the repairs to the airship, and had spent some time setting up an experimental telephone line, the young inventor received a call from his chum, Ned Newton.

"Well, well, what are you up to now?" asked Ned, as he saw his chum seated in a booth, with a telephone receiver to his ear, meanwhile looking steadily at a polished metal plate in front of him. "Trying to hypnotize yourself, Tom?"

"Not exactly. Quiet, Ned, please. I'm trying to listen."

Ned was too familiar with his chum's work to take offense at this. The young banker took a seat on a box, and silently watched Tom. The inventor shifted several switches, pressed one button after another, and tilted the polished metal plate at different angles. Then he closed the door of the little telephone booth, and Ned, through the ground glass door, saw a light shining.

"I wonder what new game Tom is up to?" Ned mused.

Presently the door opened, and Tom stuck out his head.

"Ned, come here," he invited. "Look at that metal plate and see if you can notice anything on it. I've been staring at it so steadily that my eyes are full of sticks. See what you can make out."

"What is this?" asked Ned. "No trick; is it? I won't be blown up, or get my eyes full of pepper; will I?"

"Nonsense! Of course not. I'm trying to make a photo telephone. I have the telephone part down pat, but I can't see anything of the photo image. See if you can."

Ned stared at the polished plate, while Tom did things to it, making electrical connections, and tilting it at various angles.

"See anything, Ned?" asked Tom.

The other shook his head.

"Whom am I supposed to see?" he asked.

"Why, Koku is at the other end of the wire. I'm having him help me."

Ned gazed from the polished plate out of a side window of the shop, into the yard.

"Well, that Koku is certainly a wonderful giant," said Ned, with a laugh.

"How so?" asked Tom.

"Why he can not be in two places at once. You say he ought to be at the other end of this wire, and there he is out there, spading up the garden."

Tom stared for a second and then exclaimed:

"Well, if that isn't the limit! I put him in the telephone booth in the machine shop, and told him to stay there until I was through. What in the world is he doing out there?"

"Koku!" he called to the giant, "why didn't you stay at the telephone where I put you? Why did you run away?"

"Ha!" exclaimed the giant, who, for all his great size was a simple chap, "little thing go 'tick-tick' and then 'clap-clap!' Koku no like—Koku t'ink bad spirit in telumfoam—Koku come out!"

"Well, no wonder I couldn't see any image on the plate!" exclaimed Tom. "There was nobody there. Now, Ned, you try it; will you, please?"

"Sure. Anything to oblige!"

"Then go in the other telephone booth. You can talk to me on the wire. Say anything you like—the telephone part is all right. Then you just stand so that the light in the booth shines on your face. The machine will do the

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rest—if it works."

Ned hurried off and was soon talking to his chum over the wire from the branch telephone in the machine shop. Ned stood in the glare of an electric light, and looked at a polished plate similar to the one in the other booth.

"Are you there, Ned?" asked Tom.

"Yes, I'm here."

"Is the light on?"

"Yes."

"And you're looking at the plate?"

"Sure. Can you see any reflection in your plate?"

"No, not a thing," answered Tom, and there was great discouragement in his voice. "The thing is a failure, Ned. Come on back," and the young banker could hear his chum hang up the telephone receiver at the other end.

"That's too bad," murmured Ned, knowing how Tom must feel. "I'll have to cheer him up a bit."

## CHAPTER IV. RUN DOWN

When Ned Newton got back to where Tom sat in the small telephone booth, the young banker found his chum staring rather moodily at the polished metal plate on the shelf that held the talking instrument.

"So it was no go; eh, Tom?"

"No go at all, Ned, and I thought sure I had it right this time."

"Then this isn't your first experiment?"

"Land no! I've been at it, off and on, for over a month, and I can't seem to get any farther. I'm up against a snag now, good and hard."

"Then there wasn't any image on your plate?"

"Not a thing, Ned. I don't suppose you caught any glimpse of me in your plate?" asked Tom, half hopefully.

"No. I couldn't see a thing. So you are going to try and make this thing work both ways, are you?"

"That's my intention, But I can fix it so that a person can control the apparatus at his end, and only see the person he is talking to, not being seen himself, unless he wishes it. That is, I hope to do that. Just now nobody can see anybody," and Tom sighed.

"Give it up," advised Ned. "It's too hard a nut to crack, Tom!"

"Indeed, I'll not give it up, Ned! I'm going to work along a new line. I must try a different solution of selenium on the metal plate. Perhaps I may have to try using a sensitized plate, and develop it later, though I do want to get the machine down so you can see a perfect image without the need of developing. And I will, too!" cried Tom. "I'll get some new selenium."

Eradicate, who came into the shop just then, heard the end of Tom's remarks. A strange look came over his honest black face, and he exclaimed:

"What all am dat, Massa Tom? Yo'ah gwine t' bring de new millenium heah? Dat's de end of de world, ain't it—dat millenium? Golly! Dish yeah coon neber 'spected t' lib t' see dat. De millenium! Oh mah landy!"

"No, Rad!" laughed Tom. "I was speaking about selenium, a sort of metallic combination that is a peculiar conductor of electricity. The more light that shines on it the better conductor it is, and the less light, the poorer."

"It must be queer stuff," said Ned.

"It is," declared Tom. "I think it is the only thing to use in this photo telephone experiment, though I might try the metal plate method, as they did between Monte Carlo and Paris. But I am not trying to make newspaper pictures."

"What is selenium, anyhow?" asked Ned. "Remember, Tom, I'm not up on this scientific stuff as you are."

"Selenium," went on Tom, "was discovered in 1817, by J. J. Berzelius, and he gave it that name from the Greek word for moon, on account of selenium being so similar, in some ways, to tellurium. That last is named after the Latin word tellus, the earth."

"Do they dig it?" Ned wanted to know.

"Well, sometimes selenium is found in combination with metals, in the form of selenides, the more important minerals of that kind being eucharite, crooksite, clausthalite, naumannite and zorgite—"

"Good night!" interrupted Ned, with a laugh, holding up his hands. "Stop it, Tom!" he pleaded. "You'll give me a headache with all those big words."

"Oh, they're easy, once you get used to them," said the young inventor, with a smile. "Perhaps it will be easier if I say that sometimes selenium is found in native sulphur. Selenium is usually obtained from the flue-dust or chamber deposits of some factory where sulphuric acid is made. They take this dust and treat it with acids until they get the pure selenium. Sometimes selenium comes in crystal forms, and again it is combined with various metals for different uses."

"There's one good thing about it. There are several varieties, and I'll try them all before I give up."

"That's the way to talk!" cried Ned. "Never say die! Don't give up the ship, and all that. But, Tom, what you need now is a little fun. You've been poking away at this too long. Come on out on the lake, and have a ride in the motor boat. It will do you good. It will do me good. I'm a bit rusty myself—been working hard lately. Come on—let's go out on the lake."

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"I believe I will!" exclaimed Tom, after thinking it over for a moment. "I need a little fresh air. Sitting in that telephone booth, trying to get an image on a plate, and not succeeding, has gotten on my nerves. I want to write out an order for Koku to take to town, though. I want to get some fresh selenium, and then I'm going to make new plates."

Tom made some memoranda, and then, giving Koku the order for the chemist, the young inventor closed up his shop, and went with Ned down to Lake Carlopa, where the motor boat was moored.

This was not the same boat Tom had first purchased, some years ago, but a comparatively new and powerful craft.

"It sure is one grand little day for a ride," remarked Ned, as he got in the craft, while Tom looked over the engine.

"Yes, I'm glad you came over, and routed me out," said the young inventor. "When I get going on a thing I don't know enough to stop. Oh, I forgot something!"

"What?" asked Ned.

"I forgot to leave word about Mr. Railing's airship. It's all fixed and ready for him, but I put on a new control, and I wanted to explain to him about it. He might not know how to work it. I left word with father, though, that if he came for it he must not try it until he had seen me. I guess it will be all right. I don't want to go back to the house now."

"No, it's too far," agreed Ned.

"I have it!" exclaimed Tom. "I'll telephone to dad from here, not to let Halling go up until I come back. He may not come for his machine; but, if he does, it's best to be on the safe side Ned."

"Oh, sure."

Accordingly, Tom 'phoned from his boat-house, and Mr. Swift promised to see the bird-man if he called. Then Ned and Tom gave themselves up to the delights of a trip on the water.

The Kilo, which name Tom had selected for his new craft, was a powerful boat, and comfortable. It swept on down the lake, and many other persons, in their pleasure craft, turned to look at Tom's fine one.

"Lots of folks out to-day," observed Ned, as they went around a point of the shore.

"Yes, quite a number," agreed Tom, leaning forward to adjust the motor. "I wonder what's got into her?" he said, in some annoyance, as he made various adjustments. "One of the cylinders is missing."

"Maybe it needs a new spark plug," suggested Ned.

"Maybe. Guess I'll stop and put one in."

Tom slowed down the motor, and headed his boat over toward shore, intending to tie up there for a while.

As he shifted the wheel he heard a cry behind him, and at the same time a hoarse, domineering voice called out:

"Here, what do you mean, changing your course that way? Look out, or I'll run you down! Get out of my way, you land-lubber, you!"

Startled, Ned and Tom turned. They saw, rushing up on them from astern, a powerful red motor boat, at the wheel of which sat a stout man, with a very florid face and a commanding air.

"Get out of my way!" he cried. "I can't stop so short! Look out, or I'll run you down!"

Tom, with a fierce feeling of resentment at the fellow, was about to shift the course of the Kilo, but he was too late.

A moment later there came a smashing blow on the stern port quarter and the Kilo heeled over at a dangerous angle, while, with a rending, splintering sound of wood, the big red motorboat swept on past Tom and Ned, her rubstreak grinding along the side of the Kilo.

## CHAPTER V. SHARP WORDS

"Great Scott, Tom! What happened?"

"I know as much as you, Ned. That fellow ran us down, that's all."

"Are we leaking?" and with this question Ned sprang from his place near the bow, and looked toward the stern, where the heaviest blow had been struck.

The Kilo had swung back to an even keel again, but was still bobbing about on the water.

"Any hole there?" cried Tom, as he swung the wheel over to point his craft toward shore, in case she showed a tendency to sink.

"I can't see any hole," answered Ned. "But water is coming in here."

"Then there's a leak all right! Probably some of the seams are opened, or it may be coming in around the shaft stuffing-box. Here, Ned, take the wheel, and I'll start up the engine again," for with the blow the motor had stopped.

"What are you going to do?" asked Ned, as he again made his way forward.

"Take her to shore, of course. It's deep out here and I don't want her to go down at this point."

"Say, what do you think of that fellow, anyhow, Tom?"

"I wouldn't like to tell you. Look, he's coming back."

This was so, for, as the boys watched, the big red motor boat had swung about in a circle and was headed for them.

"I'll tell him what I think of him, at any rate," murmured Tom, as he bent over his motor. "And, later on, I'll let the lawyers talk to him."

"You mean you'll sue him, Tom?"

"Well, I'm certainly not going to let him run into me and spring a leak, for nothing. That won't go with me!"

By this time Tom had the motor started, but he throttled it down so that it just turned the propeller. With it running at full speed there was considerable vibration, and this would further open the leaking seams. So much water might thus be let in that the craft could not be gotten ashore.

"Head her over, Ned," cried Tom, when he found he had sufficient headway. "Steer for Ramsey's dock. There's a marine railway next to him, and I can haul her out for repairs."

"That's the talk, Tom!" cried his chum.

By this time the big, red motor boat was close beside Tom's craft.

The man at the wheel, a stout-bodied and stout-faced man, with a complexion nearly the color of his boat, glared at the two young men.

"What do you fellows mean?" called out the man, in deep booming tones—tones that he tried to make imposing, but which, to the trained ears of Tom and Ned, sounded only like the enraged bellow of some bully.

"What do you mean, I say? Getting on my course like that!"

Ned could see Tom biting his lips, and clenching his hands to keep down his temper. But it was too much. To be run into, and then insulted, was more than Tom could stand.

"Look here!" he cried, standing up and facing the red-faced man, "I don't know who you are, and I don't care. But I'll tell you one thing—you'll pay for the damage you did to my boat!"

"I'll pay for it? Come, that's pretty good! Ha! Ha!" laughed the self-important man. "Why, I was thinking of making a complaint against you for crossing my course that way. If I find my boat is damaged I shall certainly do so anyhow. Have we suffered any damage, Snuffin?" and he looked back at a grimy-faced mechanic who was oiling the big, throbbing motor, which was now running with the clutch out.

"No, sir, I don't think we're damaged, sir," answered the man, deferentially.

"Well, it's a lucky thing for these land-lubbers that we aren't. I should certainly sue them. The idea of crossing my course the way they did. Weren't they in the wrong, Snuffin?"

The man hesitated for a moment, and glanced at Tom and Ned, as though asking their indulgence.

"Well, I asked you a question, Snuffin!" exclaimed the red-faced man sharply.

"Yes—yes, sir, they shouldn't have turned the way they did," answered the man, in a low voice.

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"Well, of all the nerve!" murmured Tom, and stopped his motor. Then, stepping to the side of his disabled and leaking boat, he exclaimed:

"Look here! Either you folks don't know anything about navigation rules, or you aren't heeding them. I had a perfect right to turn and go ashore when I did, for I found my engine was out of order, and I wanted to fix it. I blew the usual signal on the whistle, showing my intention to turn off my course, and if you had been listening you would have heard it."

"If you had even been watching you would have seen me shift, and then, coming on at the speed you did, it was your place to warn me by a whistle, so that I could keep straight on until you had passed me."

"But you did not. You kept right on and ran into me, and the only wonder is that you didn't sink me. Talk about me getting in your way! Why, you deliberately ran me down after I had given the right signal. I'll make a complaint against you, that's what I will."

If possible the red-faced man got even more rosy than usual. He fairly puffed up, he was so angry.

"Listen to that, will you, Snuffin!" he cried. "Listen to that! He says he blew his whistle to tell us he was going to turn in."

"That's what I did!" said Tom, calmly.

"Preposterous! Did you hear it, Snuffin?" puffed the important man.

"Yes—yes, I think I did, sir," answered the machinist, in a hesitating voice.

"You did? What! You mean to tell me you heard their whistle?"

"Yes—yes, sir!"

"Why—why—er—I—" the big man puffed and blew, but seemed to find no words in which to express himself. "Snuffin, I'll have a talk with you when we get home," he finally said, most significantly. "The idea of saying you heard a whistle blown! There was nothing of the kind! I shall make a complaint against these land-lubbers myself. Do you know who they are, Snuffin?"

"Yes—yes, sir," was the answer, as the man glanced at Tom. "At least I know one of them, sir."

"Very good. Give me his name. I'll attend to the rest."

Tom looked at the big man sharply. He had never seen him before, as far as he could recall. As for the machinist, the young inventor had a dim recollection that once the man might have worked in his shop.

"Go ahead, Snuffin!" said the big man, mopping his face with a large silk handkerchief, which, even at that distance, gave out a powerful perfume. "Go ahead, Snuffin, and we will settle this matter later," and, adjusting a large rose in his buttonhole, the self-important individual took his place on the cushioned seat at the wheel, while the big red motor boat drew off down the river.

"Well, of all the nerve!" gasped Ned. "Isn't he the limit?"

"Never mind," spoke Tom, with a little laugh. "I'm sorry I lost my temper, and even bothered to answer him. We'll let the lawyers do the rest of the talking. Take the wheel, Ned."

"But are you going to let him get away like this, Tom? Without asking him to pay for the damage to your boat, when he was clearly in the wrong?"

"Oh, I'll ask him to pay all right; but I'll do it the proper way. Now come on. If we stay here chinning much longer the Kilo will go down. I must find out who he is. I think I know Snuffin—he used to work for me, I now recall."

"Don't you know who that big man is?" asked Ned, as he took the wheel, while Tom again started the motor. The water was now almost up to the lower rim of the fly wheel.

"No; who is he?" asked Tom.

"Shallock Peters."

"Well, I know as much as I did before," laughed Tom. "That doesn't tell me anything."

"Why, I thought everybody in the town knew Shallock Peters," went on Ned. "He tried to do some business with our bank, but was turned down. I hear he's gone to the other one, though. He's what we call a get-rich-quick schemer, Tom—a promoter."

"I thought he acted like that sort of a character."

"Well, that's what he is. He's got half a dozen schemes under way, and he hasn't been in town over a month. I wonder you haven't seen or heard of him."

"I've been too busy over my photo telephone."

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"I suppose so. Well, this fellow Peters struck Shopton about a month ago. He bought the old Wardell homestead, and began to show off at once. He's got two autos, and this big motor boat. He always goes around with a silk hat and a flower in his buttonhole. A big bluff—that's what he is."

"He acted so to me," was Tom's comment. "Well, he isn't going to scare me. The idea! Why, he seemed to think we were in the wrong; whereas he was, and his man knew it, too."

"Yes, but the poor fellow was afraid to say so. I felt sorry for him."

"So did I," added Tom. "Well, Kilo is out of commission for the present. Guess we'll have to finish our outing by walking, Ned."

"Oh, I don't mind. But it makes me mad to have a fellow act the way he did."

"Well, there's no good in getting mad," was Tom's smiling rejoinder. "We'll take it out of him legally. That's the best way in the end. But I can't help saying I don't like Mr. Shallock Peters."

"And I don't either," added Ned.

## CHAPTER VI. A WARNING

"There, she's about right now, Ned. Hold her there!"

"Aye, aye, Captain Tom!"

"Jove, she's leaking like a sieve! We only got her here just in time!"

"That's right," agreed Ned.

Tom and his chum had managed to get the Kilo to Ramsey's dock, and over the ways of the inclined marine railway that led from the shop on shore down into the river. Then, poling the craft along, until she was in the "cradle," Ned held her there while Tom went on shore to wind up the windlass that pulled the car, containing the boat, up the incline.

"I'll give you a hand, as soon as I find she sets level," called Ned, from his place in the boat.

"All right—don't worry. There are good gears on this windlass, and she works easy," replied Tom.

In a short time the boat was out of the water, but, as Tom grimly remarked, "the water was not out of her," for a stream poured from the stuffing-box, through which the propeller shaft entered, and water also ran out through the seams that had been opened by the collision.

"Quite a smash, Tom," observed the boat repairer, when he had come out to look over the Kilo. "How'd it happen?"

"Oh, Shallock Peters, with his big red boat, ran into us!" said Ned, sharply.

"Ha, Peters; eh?" exclaimed the boatman. "That's the second craft he's damaged inside a week with his speed mania. There's Bert Johnson's little speeder over there," and he pointed to one over which some men were working. "Had to put a whole new stern in her, and what do you think that man Peters did?"

"What?" asked Tom, as he bent down to see how much damage his craft had sustained.

"He wouldn't pay young Johnson a cent of money for the repairs," went on Mr. Houston, the boatman. "It was all Peters's fault, too."

"Couldn't he make him pay?" asked Tom.

"Well, young Johnson asked for it—no more than right, too; but Peters only sneered and laughed at him."

"Why didn't he sue?" asked Ned.

"Costs too much money to hire lawyers, I reckon. So he played you the same trick; eh. Tom?"

"Pretty much, yes. But he won't get off so easily, I can tell you that!" and there was a grim and determined look on the face of the young inventor. "How long will it take to fix my boat, Mr. Houston?"

"Nigh onto two weeks, Tom. I'm terrible rushed now."

Tom whistled ruefully.

"I could do it myself quicker, if I could get her back to my shop," he said. "But she'd sink on the home trip. All right, do the best you can, Mr. Houston."

"I will that, Tom."

The two chums walked out of the boat-repair place.

"What are you going to do, Tom?" asked Ned, as they strolled along.

"Well, since we can't go motor boating, I guess I may as well go back and see if that new supply of selenium has come. I do want to get my photo telephone working, Ned."

"And that's all the outing you're going to take—less than an hour!" exclaimed Ned, reproachfully.

"Oh, well, all you wanted to do was to get me out of a rut, as you called it," laughed Tom. "And you've done it—you and Mr. Peters together. It jolted up my brain, and I guess I can think better now. Come on back and watch me tinker away, Ned."

"Not much! I'm going to stay out and get some fresh air while I can. You'd better, too."

"I will, later."

So Tom turned back to his workshop, and Ned strolled on into the country, for his day's work at the bank was over. And for some time after that—until far into the night—Tom Swift worked at the knotty problem of the photo telephone.

But the young inventor was baffled. Try as he might, he could not get the image to show on the metal plate,

## Tom Swift And His Photo Telephone

nor could he get any results by using a regular photographic plate, and developing it afterward.

"There is something wrong with the transmission of the light waves over the wire," Tom confessed to his father.

"You'll never do it, Tom," said the aged inventor. "You are only wasting a whole lot of time."

"Well, as I haven't anything else to do now, it isn't much loss," spoke Tom, ruefully. "But I'm going to make this work, Dad!"

"All right, son. It's up to you. Only I tell you it can't be done."

Tom, himself, was almost ready to admit this, when, a week later, he seemed to be no nearer a solution of the problem than he was at first. He had tried everything he could think of, and he had Eradicate and Koku, the giant, almost distracted, by making them stay in small telephone booths for hours at a time, while the young inventor tried to get some reflection of one face or the other to come over the wire.

Koku finally got so nervous over the matter, that he flatly refused to "pose" any longer, so Tom was forced to use Eradicate. As for that elderly man of all work, after many trials, all unsuccessful, he remarked:

"Massa Tom, I reckon I knows what's wrong."

"Yes, Rad? Well, what is it?"

"Mah face am too black—dat's de trouble. You done want a white—complected gen'man to stand in dat booth an' look at dat lookin' glass plate. I'se too black! I suah is!"

"No, that isn't it, Rad," laughed Tom, hopelessly. "If the thing works at all it will send a black man's face over the wire as well as a white man's. I guess the truth of it is that you're like Koku. You're getting tired. I don't know as I blame you. I'm getting a bit weary myself. I'm going to take a rest. I'll send for another kind of selenium crystals I've heard of, and we'll try them. In the meanwhile—I'll take a little vacation."

"Get out my small airship, Rad, and I'll take a little flight."

"Dat's de way to talk, Massa Tom," was the glad rejoinder.

"I'm going over to see Mr. Damon, Father," announced Tom to Mr. Swift a little later, when his speedy monoplane was waiting for him. "I haven't seen him in some time, and I'd like to get at the truth of what Mr. Halling said about Mr. Damon's fortune being in danger. I'll be back soon."

"All right, Tom. And say—"

"Yes, Dad, what is it?" asked Tom, as he paused in the act of getting in the seat.

"If he wants any ready cash, you know we've got plenty."

"Oh, sure. I was going to tell him we'd help him out."

Then, as Koku spun the propeller blades, Tom grasped the steering wheel, and, tilting the elevating rudder, he was soon soaring into the air, he and his craft becoming smaller and smaller as they were lost to sight in the distance, while the rattle and roar of the powerful motor became fainter.

In a comparatively short time Tom had made a successful landing in the big yard in front of Mr. Damon's house, and, walking up the path, kept a lookout for his friend.

"I wonder why he didn't come out to meet me?" mused Tom, for usually when the eccentric man heard the throbbing of Tom's motor, he was out waiting for the young inventor. But this time it was not the case.

"Is Mr. Damon in?" Tom asked of the maid who answered his ring.

"Yes, Mr. Swift. You'll find him in the library," and she ushered him in.

"Oh, hello, Tom," greeted Mr. Damon, but the tone was so listless, and his friend's manner so gloomy that the young inventor was quite embarrassed.

"Have a chair," went on Mr. Damon. "I'll talk to you in a minute, Tom. I've got to finish this letter, and it's a hard one to write, let me tell you."

Now Tom was more astonished than ever. Not once had Mr. Damon "blessed," anything, and when this did not happen Tom was sure something was wrong. He waited until his friend had sealed the letter, and turned to him with a sigh. Then Tom said boldly:

"Mr. Damon, is it true that you're having hard luck—in money matters?"

"Why, yes, Tom, I'm afraid I am," was the quick answer. "But who told you?"

"Grant Halling. He was over to get me to fix his airship," and Tom briefly related what had happened.

"Oh, yes, I did mention the matter to him," went on Mr. Damon, and his tone was still listless. "So he told you; did he? Well, matters aren't any better, Tom. In fact, they're worse. I just had to write to a man who was

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asking for help, and I had to refuse him, though he needs it very much. The truth is I hadn't the money. Tom, I'm afraid I'm going to be a very poor man soon."

"Impossible, Mr. Damon! Why, I thought your investments—"

"I've made some bad ones of late, Tom. I've been pretty foolish, I'm afraid. I drew out some money I had in government bonds, and invested in certain stocks sold by a Mr. Shallock Peters."

"Shallock Peters!" cried Tom, almost jumping out of his chair. "Why, I know him—I mean I've met him."

"Have you, Tom? Well, then, all I've got to say is to steer clear of him, my boy. Don't have anything to do with him," and, with something of a return of his usual energy Mr. Damon banged his fist down on his desk. "Give him a wide berth, Tom, and if you see him coming, turn your back. He'd talk a miser into giving him his last cent. Keep away from Shallock Peters, Tom. Bless my necktie, he's a scoundrel, that's what he is!" and again Mr. Damon banged his desk forcibly.

## CHAPTER VII. SOFT WORDS

"Well, I'm glad of one thing!" exclaimed Tom, when the ink bottle and the paper cutter on Mr. Damon's desk had ceased rattling, because of the violence of the blow. "I'm glad of one thing."

"What's that, Tom?" asked his friend.

"I heard you bless something at last—the first time since I came in."

"Oh!" and Mr. Damon laughed. "Well, Tom, I haven't been blessing things lately—that's a fact. I haven't had the heart for it. There are too many business complications. I wish I'd never met this Peters."

"So do I," said Tom. "My motor boat would not have been damaged then."

"Did he do that, Tom?"

"He certainly did, and then he accused me of being at fault."

"That would be just like him. Tell me about it, Tom."

When the young inventor finished the story of the collision Mr. Damon sat silent for a moment. Then he remarked slowly:

"That's just like Peters. A big bluff—that's what he is. I wish I'd discovered that fact sooner—I'd be money in pocket. But I allowed myself to be deceived by his talk about big profits. At first he seemed like a smart business man, and he certainly had fine recommendations. But I am inclined to believe, now, that the recommendations were forged."

"What did he do to you, Mr. Damon?" asked Tom, with ready sympathy.

"It's too complicated to go into details over, Tom, but to make a long story short, he got me to invest nearly all my fortune in some enterprises that, I fear, are doomed to failure. And if they do fail, I'll be a ruined man."

"No, you won't!" exclaimed Tom. "That's one reason why I came here to-day. Father told me to offer you all the ready money you needed to get out of your trouble. How much do you need, Mr. Damon?"

"Bless my collar button! That's like your father, Tom," and now Mr. Damon seemed more like his old self. "Bless my shoes, a man never knows who his real friends are until trouble comes. I can't say how I thank you and your father, Tom. But I'm not going to take advantage of him."

"It wouldn't be taking any advantage of him, Mr. Damon. He has money lying idle, and he'd like to have you use it."

"Well, Tom, I might use it, if I had only myself to think about. But there's no use in throwing good money after bad. If I took yours now this fellow Peters would only get it, and that would be the last of it."

"No, Tom, thank you and your father just the same, but I'll try to weather the storm a bit longer myself. Then, if I do go down I won't drag anybody else with me. I'll hang on to the wreck a bit longer. The storm may blow over, or—or something may happen to this fellow Peters."

"Has he really got you in his grip, Mr. Damon?"

"He has, and, to a certain extent, it's my own fault. I should have been suspicious of him. And now, Tom, let me give you a further word of warning. You heard me say to steer clear of this Peters?"

"Yes, and I'm going to. But I'm going to make him pay for damaging my boat, if I possibly can."

"Maybe it would be wiser not to try that, Tom. I tell you he's a tricky man. And one thing more. I have heard that this man Peters makes a specialty of organizing companies to take up new inventions."

"Is that so?" asked Tom, interestedly.

"Yes, but that's as far as it goes. Peters gets the invention, and the man, out of whose brain it came, gets nothing."

"In other words, he swindles them?"

"That's it, Tom. If not in one way, then in another. He cheats them out of the profits of their inventions. So I want to warn you to be on the lookout."

"Don't worry," said Tom. "Peters will get nothing from my father or me. We'll be on our guard. Not that I think he will try it, but it's just as well to be warned. I didn't like him from the moment he ran into me, and, now that I know what he has done to you, I like him still less. He won't get anything from me!"

"I'm glad to hear you say so, Tom. I wish he'd gotten nothing out of me."

## Tom Swift And His Photo Telephone

"Are you sure you won't let my father help you, financially, Mr. Damon?"

"No, Tom, at least not for the present. I'm going to make another fight to hold on to my fortune. If I find I can't do it alone, then I'll call on you. I'm real glad you called. Bless my shoestring! I feel better now."

"I'm glad of it," laughed Tom, and he saw that his friend was in a better state of mind, as his "blessings" showed.

Tom remained for a little longer, talking to Mr. Damon, and then took his leave, flying back home in the airship.

"Gen'man t' see yo', Massa Tom," announced Eradicate, as he helped Tom wheel the monoplane back into the shed.

"Is that so, Rad? Where is he?"

"Settin' in th' library. Yo' father am out, so I asted him in dere."

"That's right, Rad. Who is he, do you know?"

"No, sah, Massa Tom, I doan't. He shore does use a pow'ful nice perfume on his pocket hanky, though. Yum—yum!"

"Perfume!" exclaimed Tom, his mind going back to the day he had had the trouble with Mr. Peters. "Is he a big, red-faced man, Rad?"

"No, sah, Massa Tom. He's a white-faced, skinny man."

"Then it can't be Peters," mused Tom. "I guess perhaps it's that lawyer I wrote to about bringing suit to get back what it cost me to have the Kilo fixed. I'll see him at once. Oh, by the way, it isn't Mr. Grant Halling; is it? The gentleman who got tangled up in our aerials with his airship? Is it he?"

"No, sah, Massa Tom. 'Tain't him."

"I thought perhaps he had gotten into more trouble," mused Tom, as he took off his airship "togs," and started for the house. For Mr. Halling had called for his repaired airship some time ago, and had promised to pay Tom another and more conventional visit, some future day.

Tom did not know the visitor whom he greeted in the library a little later. The man, as Eradicate had said, was rather pale of face, and certainly he was not very fleshy.

"Mr. Tom Swift, I think?" said the man, rising and holding out his hand.

"That's my name. I don't believe I know you, though."

"No, I haven't your reputation," said the man, with a laugh that Tom did not like. "We can't all be great inventors like you," and, somehow, Tom liked the man less than before, for he detected an undertone of sneering patronage in the words. Tom disliked praise, and he felt that this was not sincere.

"I have called on a little matter of business," went on the man. "My name is Harrison Boylan, and I represent Mr. Shallock Peters."

Instinctively Tom stiffened. Receiving a call from a representative of the man against whom Mr. Damon had warned him only a short time before was a strange coincidence, Tom thought.

"You had some little accident, when your motor boat and that of Mr. Peters collided, a brief time ago; did you not?" went on Mr. Boylan.

"I did," said Tom, and, as he motioned the caller to be seated Tom saw, with a start, that some of the drawings of his photo telephone were lying on a desk in plain sight. They were within easy reach of the man, and Tom thought the sheets looked as though they had been recently handled. They were not in the orderly array Tom had made of them before going out.

"If he is a spy, and has been looking at them," mused Tom, "he may steal my invention." Then he calmed himself, as he realized that he, himself, had not yet perfected his latest idea. "I guess he couldn't make much of the drawings," Tom thought.

"Yes, the collision was most unfortunate," went on Mr. Boylan, "and Mr. Peters has instructed me to say—"

"If he's told you to say that it was my fault, you may as well save your time," cut in Tom. "I don't want to be impolite, but I have my own opinion of the affair. And I might add that I have instructed a lawyer to begin a suit against Mr. Peters—"

"No necessity for that at all!" interrupted the man, in soft accents. "No necessity at all. I am sorry you did that, for there was no need. Mr. Peters has instructed me to say that he realizes the accident was entirely his own fault, and he is very willing— nay, anxious, to pay all damages. In fact, that is why I am here, and I am empowered, my

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dear Mr. Swift, to offer you five hundred dollars, to pay for the repairs to your motor boat. If that is not enough—"

The man paused, and drew a thick wallet from his pocket. Tom felt a little embarrassed over what he had said.

"Oh," spoke the young inventor, "the repair bill is only about three hundred dollars. I'm sorry—"

"Now that's all right, Mr. Swift! It's all right," and the man, with his soft words, raised a white, restraining hand. "Not another word. Mr. Peters did not know who you were that day he so unfortunately ran into you. If he had, he would not have spoken as he did. He supposed you were some amateur motor-boatist, and he was—well, he admits it—he was provoked."

"Since then he has made inquiries, and, learning who you were, he at once authorized me to make a settlement in full. So if five hundred dollars—"

"The repair bill," said Tom, and his voice was not very cordial, in spite of the other's persuasive smile, "the bill came to three hundred forty-seven dollars. Here is the receipted bill. I paid it, and, to be frank with you, I intended bringing suit against Mr. Peters for that sum."

"No need, no need at all, I assure you!" interrupted Mr. Boylan, as he counted off some bills. "There you are, and I regret that you and Mr. Peters had such a misunderstanding. It was all his fault, and he wants to apologize to you."

"The apology is accepted," said Tom, and he smiled a trifle. "Also the money. I take it merely as a matter of justice, for I assure you that Mr. Peters's own machinist will say the accident was his employer's fault."

"No doubt of it, not the least in the world," said the caller. "And now that I have this disagreeable business over, let me speak of something more pleasant."

Instinctively Tom felt that now the real object of the man's call would be made plain—that the matter of paying the damages was only a blind. Tom steeled himself for what was to come.

"You know, I suppose," went on Mr. Boylan, smiling at Tom, "that Mr. Peters is a man of many and large interests."

"I have heard something like that," said Tom, cautiously.

"Yes. Well, he is an organizer—a promoter, if you like. He supplies the money for large enterprises, and is, therefore, a benefactor of the human race. Where persons have no cash with which to exploit their—well, say their inventions. Mr. Peters takes them, and makes money out of them."

"No doubt," thought Tom, grimly.

"In other cases, where an inventor is working at a handicap, say with too many interests, Mr. Peters takes hold of one of his ideas, and makes it pay much better than the inventor has been able to do."

"Now, Mr. Peters has heard of you, and he would like to do you good."

"Yes, I guess he would," thought Tom. "He would like to do me—and do me good and brown. Here's where I've got to play a game myself."

"And so," went on Mr. Boylan, "Mr. Peters has sent me to you to ask you to allow him to exploit one, or several, of your inventions. He will form a large stock company, put one of your inventions on the market, and make you a rich man. Now what do you say?" and he looked at Tom and smiled—smiled, the young inventor could not help thinking, like a cat looking at a mouse. "What do you say, Mr. Swift?"

For a moment Tom did not answer. Then getting up and opening the library door, to indicate that the interview was at an end, the young inventor smiled, and said:

"Tell Mr. Peters that I thank him, but that I have nothing for him to exploit, or with which to form a company to market."

"Wha—what!" faltered the visitor. "Do you mean to say you will not take advantage of his remarkable offer?"

"That's just what I mean to say," replied Tom, with a smile.

"You won't do business with Mr. Peters? You won't let him do you good?"

"No," said Tom, quietly.

"Why—why, that's the strangest—the most preposterous thing I ever heard of!" protested Mr. Boylan. "What—what shall I say to Mr. Peters?"

"Tell him," said Tom, "tell him, from me, and excuse the slang, if you like, but tell him there is—nothing doing!"

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## CHAPTER VIII. TOM IS BAFFLED

Amazement held Mr. Boylan silent for a moment, and then, staring at Tom, as though he could not believe what he had heard the young inventor say, the representative of Mr. Peters exclaimed:

"Nothing doing?"

"That's what I said," repeated Tom, calmly.

"But—but you don't understand, I'm afraid."

"Oh, but indeed I do."

"Then you refuse to let my friend, Mr. Peters, exploit some of your inventions?"

"I refuse absolutely."

"Oh, come now. Take an invention that hasn't been very successful."

"Well, I don't like to boast," said Tom with a smile, "but all of my inventions have been successful. They don't need any aid from Mr. Peters, thank you."

"But this one!" went on the visitor eagerly, "this one about some new kind of telephone," and he motioned to the drawings on the table. "Has that been a success? Excuse me for having looked at the plans, but I did not think you would mind. Has that telephone been a success? If it has not perhaps Mr. Peters could form a company to—"

"How did you know those drawings referred to a telephone?" asked Tom, suspiciously, for the papers did not make it clear just what the invention was.

"Why, I understood—I heard, in fact, that you were working on a new photo telephone, and—"

"Who told you?" asked Tom quickly.

"Oh, no one in particular. The colored man who sent me here mentioned—"

"Eradicate!" thought Tom. "He must have been talking. That isn't like him. I must look into this."

Then to his caller he said:

"Really, you must excuse me, Mr. Boylan, but I don't care to do any business with Mr. Peters. Tell him, with my thanks, that there is really nothing doing in his line. I prefer to exploit my own inventions."

"That is your last word?"

"Yes," returned Tom, as he gathered up the drawings.

"Well," said Mr. Boylan, and Tom could not help thinking there was a veiled threat in his tones, "you will regret this. You will be sorry for not having accepted this offer."

"I think not," replied Tom, confidently. "Good—day."

The young inventor sat for some time thinking deeply, when his visitor had gone. He called Eradicate to him, and gently questioned the old colored man, for Eradicate was ageing fast of late, and Tom did not want him to feel badly.

It developed that the servant had been closely cross-questioned by Mr. Boylan, while he was waiting for Tom, and it was small wonder that the old colored man had let slip a reference to the photo telephone. But he really knew nothing of the details of the invention, so he could have given out no secrets.

"But at the same time," mused Tom, "I must be on guard against these fellows. That Boylan seems a pretty slick sort of a chap. As for Peters, he's a big 'bluff,' to be perfectly frank. I'm glad I had Mr. Damon's warning in mind, or I might have been tempted to do business with him."

"Now to get busy at this photo telephone again. I'm going to try a totally different system of transmission. I'll use an alternating current on the third wire, and see if that makes it any better. And I'll put in the most sensitive selenium plate I can make. I'm going to have this thing a success."

Tom carefully examined the drawings of his invention, at which papers Mr. Boylan had confessed to looking. As far as the young inventor could tell none was missing, and as they were not completed it would be hard work for anyone not familiar with them to have gotten any of Tom's ideas.

"But at the same time I'm going to be on my guard," mused Tom. "And now for another trial."

Tom Swift worked hard during the following week, and so closely did he stick to his home and workshop that he did not even pay a visit to Mr. Damon, so he did not learn in what condition that gentleman's affairs were. Tom even denied himself to his chum Ned, so taken up was the young inventor with working out the telephone

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problem, until Ned fairly forced himself into the shop one day, and insisted on Tom coming out.

"You need some fresh air!" exclaimed Ned. "Come on out in the motor boat again. She's all fixed now; isn't she?"

"Yes," answered Tom, "but—"

"Oh, 'but me no buts,' as Mr. Shakespeare would say. Come on, Tom. It will do you good. I want a spin myself."

"All right, I will go for a little while," agreed Tom. "I am feeling a bit rusty, and my head seems filled with cobwebs."

"Can't get the old thing to come out properly; eh?"

"No. I guess dad was more than half right when he said it couldn't be done. But I haven't given up. Maybe I'll think of some new plan if I take a little run. Come along."

They went down to the boat house, and soon were out on the lake in the Kilo.

"She runs better since you had her fixed," remarked Ned.

"Yes, they did a good job."

"Did you sue Peters?"

"Didn't have to. He sent the money," and Tom told of his interview with Mr. Boylan. This was news to Ned, as was also the financial trouble of Mr. Damon.

"Well," said the young banker, "that bears out what I had heard of Peters—that he was a get-rich-quick chap, and a good one to steer clear of."

"Speaking of steering clear," laughed Tom, "there he is now, in his big boat," and he pointed to a red blur coming up the lake. "I'll give him a wide enough berth this time."

But though Mr. Peters, in his powerful motor boat, passed close to Tom's more modest craft, the big man did not glance toward our hero and his chum. Nor did Mr. Boylan, who was with his friend, look over.

"I guess they've had enough of you," chuckled Ned.

"Probably he wishes he hadn't paid me that money," said Tom. "Very likely he thought, after he handed it over, that I'd be only too willing to let him manage one of my inventions. But he has another guess coming."

Tom and Ned rode on for some distance, thoroughly enjoying the spin on the lake that fine Summer day. They stopped for lunch at a picnic resort, and coming back in the cool of the evening they found themselves in the midst of a little flotilla of pleasure craft, all decorated with Japanese lanterns.

"Better slow down a bit," Ned advised Tom, for many of the pleasure craft were canoes and light row boats. "Our wash may upset some of them."

"Guess you're right, old man," agreed Tom, as he closed the gasoline throttle, to reduce speed. Hardly had he done so than there broke in upon the merry shouts and singing of the pleasure-seekers the staccato exhaust of a powerful motor boat, coming directly behind Tom's craft.

Then came the shrill warning of an electrical siren horn.

"Somebody's in a hurry," observed Tom.

"Yes," answered Ned. "It sound's like Peters's boat, too."

"It is!" exclaimed Tom. "Here he comes. He ought to know better than to cut through this raft of boats at that speed."

"Is he headed toward us?"

"No, I guess he's had enough of that. But look at him!"

With undiminished speed the burly promoter was driving his boat on. The big vibrating horn kept up its clamor, and a powerful searchlight in front dazzled the eyes.

"Look out! Look out!" cried several.

Many of the rowers and paddlers made haste to clear a lane for the big, speedy motor craft, and Peters and his friends (for there were several men in his boat now) seemed to accept this as a matter of course, and their right.

"Somebody'll be swamped!" exclaimed Ned.

Hardly had he spoken than, as the big red boat dashed past in a smother of foam, there came a startled cry in girls' voices.

"Look!" cried Tom. "That canoe's upset! Speed her up, Ned! We've got to get 'em!"

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## CHAPTER IX. A GLEAM OF HOPE

"Where are they?"

"Who are they?"

"Over this way! There's their canoe!"

"Look out for that motor boat!"

"Who was it ran them down? They ought to be arrested!"

These were only a few of the cries that followed the upsetting of the frail canoe by the wash from the powerful red boat. On Tom's Kilo there was a small, electrical searchlight which he had not yet switched on. But, with his call to Ned Newton to speed up the motor, that had been slowed down, Tom, with one turn of his fingers, set the lamp aglow, while, with the other hand, he whirled the wheel over to head his craft for the spot where he saw two figures struggling in the water.

Fortunately the lanterns on the various canoes and row-boats, as well as the light on the bow of Tom's Kilo, made an illumination that gave the rescuers a good chance to work. Many other boats besides Tom's had headed for the scene, but his was the more practical, since the others—all quite small ones—were pretty well filled.

"There they are, Ned!" Tom suddenly cried. "Throw out the clutch! I'll get 'em!"

"Want any help?"

"No, you stay at the engine, and mind what I say. Reverse now! We're going to pass them!"

Ned threw in the backing gear, and the screw churned the water to foam under the stern of the Kilo.

Tom leaned over the bow, and made a grab for the gasping, struggling figure of a girl in the water. At the same time he had tossed overboard a cork life ring, attached to a rope which, in turn, was made fast to the forward deck-cleat. "Grab that!" cried Tom. "Hold on, and I'll have you out in a second! That's enough, Ned! Shut her off!"

The Kilo came to a standstill, and, a second later, Tom had pulled into his boat one of the girls. She would have collapsed, and fallen in a heap on the bottom boards, had not Ned, who had come forward from the engine, caught her.

Then Tom, again leaning over the side, pulled in the other girl, who was clinging to the life ring.

"You're all right," Tom assured her, as she came up, gasping, choking and crying hysterically. "You're all right!"

"Is—is Minnie saved?" she sobbed.

"Yes, Grace! I'm here," answered the one Ned was supporting.

"Oh, wasn't it terrible!" cried the second girl Tom had saved.

"I thought we would be drowned, even though we can swim."

"Yes, it—it was so—so sudden!" gasped her companion. "What happened?"

"The wash from that big boat upset you," explained Tom. "That fellow ought to be ashamed of himself, rushing along the way he did. Now, can I take you girls anywhere? Your canoe seems to have drifted off."

"I have it!" someone called. "It's turned over, but I can tow it to shore."

"And I'll take the girls home," offered a gentleman in a large rowboat. "My wife will look after them. They live near us," and he mentioned his own name and the names of the two girls Tom had saved. The young inventor did not know them, but he introduced himself and Ned.

"This is the annual moonlight outing of our little boat club," explained the man who had offered to look after the girls, "and it is the first time we ever had an accident. This was not our fault, though."

"Indeed it was not," agreed Tom, after he had helped the two dripping young ladies into the rowboat. "It was due to Mr. Peters's speed mania."

"I shall make a complaint against him to the navigation authorities," said Mr. Ralston, who was looking after the girls. "He must think he, alone, has any rights on this lake."

With renewed thanks to Tom and Ned, the rescued girls were rowed off to their homes, while the interrupted water carnival was continued.

"Some little excitement; eh, Tom?" remarked Ned, when they were once more under way.

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"Yes. We seem to run into that fellow Peters, or some of his doings, quite often lately."

"And it isn't a good sign, either," murmured Ned.

For some minutes after that Tom did not speak. In fact he was so silent that Ned at last inquired:

"What's the matter, Tom—in love?"

"Far from it. But, Ned, I've got an idea."

"And I've got a wet suit of clothes where that nice young lady fainted in my arms. I'm soaked."

"That's what gave me the idea—the water, I mean. I noticed how everything was reflected in it, and, do you know, Ned, I believe I have been working on the wrong principle for my photo telephone."

"Wrong, Tom, how is that?"

"Why, I've been using a dry plate, and I think I should have used a wet one. You know how even in a little puddle of water on the sidewalk you can see yourself reflected?"

"Yes, I've often seen that."

"Well then, 'bless my watch chain!' as Mr. Damon would say, I think I've got just what I want. I'm going to try a wet plate now, and I think it will work. Come on now. Speed up! I'm in a great big hurry to get home and try it!"

"Well, Tom, I sure will be glad if you've got the right idea," laughed Ned. "It will be worth getting wet through for, if you strike something. Good luck!"

Tom could hardly wait to fasten up his boat for the night, so eager was he to get to his shop laboratory and try the new idea. A gleam of hope had come to him.

It was still early evening, and Tom, when enticed out by Ned, had left his photo telephone apparatus in readiness to go on with his trials as soon as he should have come back.

"Now for it, Ned!" exclaimed the young inventor, as he took off his coat. "First I'll sensitize a selenium plate, and then I'll wet it. Water is always a good conductor of electricity, and it's a wonder that I forgot that when I was planning this photo telephone. But seeing the sparkle of lights, and the reflection of ourselves in the lake to-night, brought it back to me. Now then, you haven't anything special to do; have you?"

"Not a thing, Tom."

"That's good. Then you get in this other telephone closet—the one in the casting shop. I'll put a prepared plate in there, and one in the booth where I'm to sit. Then I'll switch on the current, and we'll see if I can make you out, and you notice whether my image appears on your plate."

It took some little time to make ready for this new test. Tom was filled with enthusiasm, and he was sure it was going to be successful this time. Ned watched him prepare the selenium plates—plates that were so sensitive to illumination that, in the dark, the metal would hardly transmit a current of electricity, but in the light would do so readily, its conductivity depending on the amount of light it received.

"There, I guess we're all ready, Ned," announced Tom, at last. "Now you go to your little coop, and I'll shut myself up in mine. We can talk over the telephone."

Seated in the little booth in one of the smaller of Tom's shops, Ned proceeded with his part in the new experiment. A small shelf had been fitted up in the booth, or closet, and on this was the apparatus, consisting of a portable telephone set, and a small box, in which was set a selenium plate. This plate had been wet by a spray of water in order to test Tom's new theory.

In a similar booth, several hundred feet away, and in another building, Tom took his place. The two booths were connected by wires, and in each one was an electric light.

"All ready, Ned?" asked Tom, through the telephone.

"All ready," came the answer.

"Now then, turn on your switch—the one I showed you—and look right at the sensitized plate. Then turn out your light, and slowly turn it on. It's a new kind, and the light comes up gradually, like gas or an oil lamp. Turn it on easily."

"I get you, Tom."

Ned did as requested. Slowly the illumination in the booth increased.

"Do you get anything, Tom?" asked Ned, over the wire.

"Not yet," was the somewhat discouraged answer. "Go ahead, turn on more light, and keep your face close to the plate."

Ned did so.

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"How about it now?" he asked, a moment later.

"Nothing—yet," was the answer. And then suddenly Tom's voice rose to a scream over the wire.

"Ned—Ned! Quick!" he called. "Come here—I—I—"

The voice died off into a meaningless gurgle.

## CHAPTER X. MIDNIGHT VISITORS

Ned Newton never knew exactly how he got out of the telephone booth. He seemed to give but one jump, tearing the clamped receiver from his ear, and almost upsetting the photo apparatus in his mad rush to help Tom. Certain it is, however, that he did get out, and a few seconds later he was speeding toward the shop where Tom had taken his position in a booth.

Ned burst in, crying out:

"Tom! What is it? What happened? What's the matter?"

There was no answer. Fearing the worst, Ned hurried to the small booth, in one corner of the big, dimly lighted shop. He could see Tom's lamp burning in the telephone compartment,

"Tom! Tom!" called the young banker.

Still there was no answer, and Ned, springing forward, threw open the double, sound-proof door of the booth. Then he saw Tom lying unconscious, with his head and arms on the table in front of him, while the low buzzing of the electrical apparatus in the transmitting box told that the current had not been shut off.

"Tom! Tom!" cried Ned in his chum's ear. He shook him by the shoulder,

"Are you hurt? What is the matter?"

The young inventor seemed unconscious, and for a moment Ned had a wild idea that Tom had been shocked to death, possibly by some crossed live wire coming in contact with the telephone circuit.

"But that couldn't have happened, or I'd have been shocked myself," mused Ned.

Then he became aware of a curious, sweet, sickish odor in the booth. It was overpowering. Ned felt himself growing dizzy.

"I have it—chloroform!" he gasped. "In some way Tom has been overcome by chloroform. I've got to get him to the fresh air."

Once he had solved the puzzle of Tom's unconsciousness, Ned was quick to act. He caught Tom under the arms, and dragged him out of the booth, and to the outer door of the shop. Almost before Ned had reached there with his limp burden, Tom began to revive, and soon the fresh, cool night air completed the work.

"I—I," began the young inventor. "Ned, I—I—"

"Now take it easy, Tom," advised his chum. "You'll be all right in a few minutes. What happened? Shall I call your father, or Koku?"

"No—don't. It would only—only alarm dad," faltered Tom. "I'm getting all right now. But he—he nearly had me, Ned!"

"He had you? What do you mean, Tom? Who had you?"

"I don't know who it was, but when I was talking to you over the wire, all of a sudden I felt a hand behind me. It slipped over my mouth and nose, and I smelled chloroform. I knew right away something was wrong, and I called to you. That's all I remember. I guess I must have gone off."

"You did," spoke Ned. "You were unconscious when I got to you. I couldn't imagine what had happened. First I thought it was an electrical shock. Then I smelled that chloroform. But who could it have been, Tom?"

"Give it up, Ned! I haven't the slightest idea."

"Could they have been going to rob you?"

"I haven't a thing but a nickel watch on me," went on Tom. "I left all my cash in the house. If it was robbery, it wasn't me, personally, they were after."

"What then? Some of your inventions?"

"That's my idea now, Ned. You remember some years ago Jake Burke and his gang held me up and took one of dad's patents away from me?"

"Yes, I've heard you mention that. It was when you first got your motor cycle; wasn't it?"

"That's right. Well, what I was going to say was that they used chloroform on me then, and—"

"You think this is the same crowd? Why, I thought they were captured."

"No, they got away, but I haven't heard anything of them in years. Now it may be they have come back for revenge, for you know we got back the stolen property."

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"That's right. Say, Tom, it might be so. What are you going to do about it?"

"I hardly know. If it was Jake Burke, alias Happy Harry, and his crowd, including Appleson, Morse and Featherton, they're a bad lot. I wouldn't want father to know they were around, for he'd be sure to worry himself sick. He never really got over the time they attacked me, and got the patent away. Dad sure thought he was ruined then."

"Now if I tell him I was chloroformed again to-night, and that I think it was Burke and his crowd, he'd be sure to get ill over it. So I'm just going to keep mum."

"Well, perhaps it's the best plan. But you ought to do something."

"Oh, I will, Ned, don't worry about that. I feel much better now."

"How did it happen?" asked Ned, his curiosity not yet satisfied.

"I don't know, exactly. I was in the booth, talking to you, and not paying much attention to anything else. I was adjusting and readjusting the current, trying to get that image to appear on the plate. All at once, I felt someone back of me, and, before I could turn, that hand, with the chloroform sponge, was over my mouth and nose. I struggled, and called out, but it wasn't much use."

"But they didn't do anything else—they didn't take anything; did they, Tom?"

"I don't know, Ned. We'll have to look around. They must have sneaked into the shop. I left the door open, you see. It would have been easy enough."

"How many were there?"

"I couldn't tell. I only felt one fellow at me; but he may have had others with him."

"What particular invention were they after, Tom?"

"I'm sure I don't know. There are several models in here that would be valuable. I know one thing, though, they couldn't have been after my photo telephone," and Tom laughed grimly.

"Why not?" Ned wanted to know.

"Because it's a failure—that's what! It's a dead, sure failure, Ned, and I'm going to give it up!" and Tom spoke bitterly.

"Oh, don't say that!" urged his chum. "You may be right on the verge of perfecting it, Tom. Didn't you see any image at all on the plate?"

"Not a shadow. I must be on the wrong track. Well, never mind about that now. I'm going to look around, and see if those fellows took anything."

Tom was feeling more like himself again, the effects of the chloroform having passed away. He had breathed the fumes of it for only a little while, so no harm had been done. He and Ned made an examination of the shop, but found nothing missing.

There were no traces of the intruders, however, though the two chums looked carefully about outside the building.

"You were too quick for them, Ned," said Tom. "You came as soon as I called. They heard me speaking, and must have known that I had given the alarm."

"Yes, I didn't lose any time," admitted Ned, "but I didn't see a sign of anyone as I ran up."

"They must have been pretty quick at getting away. Well, now to decide what's best to do to-night."

After some consultation and consideration it was decided to set the burglar alarms in every building of the Swift plant. Some time previous, when he had been working on a number of valuable inventions, unscrupulous men had tried to steal his ideas and models. To prevent this Tom had arranged a system of burglar alarms, and had also fitted up a wizard camera that would take moving pictures of anyone coming within its focus. The camera could be set to work at night, in connection with the burglar alarms.

The apparatus was effective, and thus an end was put to the efforts of the criminals. But now it seemed Tom would have to take new precautionary measures. His camera, however, was not available, as he had loaned it to a scientific society for exhibition.

"But we'll attach the burglar wires," decided Tom, "and see what happens."

"It might be a good plan to have Koku on guard," said Tom's chum. "That giant could handle four or five of the chaps as easily as you and I could tackle one."

"That's right," agreed Tom. "I'll put him on guard. Whew! That chloroform is giving me a headache. Guess I'll go to bed. I wish you'd stay over to-night, Ned, if you haven't anything else to do. I may need you."

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"Then of course I'll stay, Tom. I'll telephone home that I won't be in."

A little later Tom had put away his new photo telephone apparatus, and had prepared for the warm reception of any unbidden callers.

"I wish I hadn't started on this new invention," said Tom, half bitterly, as he locked up the main parts of his machine, "I know it will never work."

"Oh, yes it will," spoke Ned, cheerfully. "You never failed yet, Tom Swift, in anything you undertook, and you're not going to now."

"Well, that's good of you to say, Ned, but I think you're wrong this time. But I'm not going to think any more about it to-night, anyhow. Now to find Koku and put him on watch."

The giant listened carefully to Tom's simple instructions.

"If any bad men come in the night, Koku," said the young inventor, "you catch them!"

"Yes, master, me catch!" said Koku, grimly. "Me catch!" and he stretched out his powerful arms, and clenched his big hands in a way that boded no good to evildoers.

Nothing was said to Mr. Swift, to Mrs. Baggert, or to Eradicate about what had happened, for Tom did not want to worry them. The burglar alarms were set, Koku took his place where he could watch the signals, and at the same time be ready to rush out, for, somehow, Tom had an idea that the men who had attacked him would come back.

Tom and Ned occupied adjoining rooms, and soon were ready for bed. But, somehow, Tom could not sleep. He lay awake, tossing from side to side, and, in spite of his resolution not to think about his photo telephone invention, his mind ran on nothing but that.

"I can't see what next to do to make it work," he told himself, over and over again. "Something is wrong—but what?"

At length he fell into a fitful doze, and he had a wild dream that he was sliding down hill on a big mirror in which all sorts of reflections were seen—reflections that he could not get to show in the selenium plates.

Then Tom felt the mirror bobbing up and down like a motor boat in a storm. He felt the vibration, and he heard a voice calling in his ear:

"Get up, Tom! Get up!"

"Yes! What is it?" he sleepily exclaimed,

"Hush!" was the caution he heard, and then he realized that his dream had been caused by Ned shaking him.

"Well?" whispered Tom, in tense tones.

"Midnight visitors!" answered his chum "The burglar alarm has just gone off! The airship hangar drop fell. Koku has gone out. Come on!"

## CHAPTER XI. THE AIRSHIP IS TAKEN

Tom leaped silently out of bed, and stood for a moment half dazed, so soundly had he been sleeping.

"Come on!" urged Ned softly, realizing that his chum had not fully comprehended. "Koku will hold them until we get there. I haven't roused anyone else."

"That's right," whispered Tom, as he began putting on his clothes. "I don't want father to know. When did it happen?"

"Just a little while ago. I couldn't sleep very well, but I fell into a doze, and then I heard the buzzer of the alarm go off. I saw that the drop, showing that the hangar had been entered, had fallen. I got to the window in time to see Koku going toward the shed from his little coop. Then I came to you."

"Glad you did," answered Tom. "I didn't think I was sleeping so soundly."

Together the two chums made their way from their rooms down the dimly-lighted hall to a side door, whence they could reach the airship hangar, or shed.

"Won't we need something—a gun or—" began Ned.

"Clubs are better—especially at night when you can't see to aim very well," whispered back Tom. "I've got a couple of good ones downstairs. I could use my electric rifle, and set it merely to disable temporarily whoever the charge hit, but it's a little too risky. Koku has a habit of getting in the way at the most unexpected times. He's so big, you know. I think clubs will be best."

"All right, Tom, just as you say," agreed Ned. "But who do you think it can be?"

"I haven't the least idea. Probably the same fellows who were after me before, though. This time I'll find out what their game is, and what they're after."

The chums reached the lower hall, and there Tom picked out two African war clubs which he had brought back with him from one of his many trips into wild lands.

"These are just the thing!" exclaimed Ned, swinging his about.

"Careful," cautioned Tom, "If you hit something you'll rouse the house, and I don't want my father and Mrs. Baggert, to say nothing of Eradicate, awakened."

"Excuse me," murmured Ned. "But we'd better be getting a move on."

"That's right," agreed Tom. He dropped into a side pocket a small but powerful electric flash lamp, and then he and Ned let themselves out.

There had been a bright moon, but it was now overcast by clouds. However, there was sufficient light to enable the two lads to see objects quite clearly. All about them were the various buildings that made up the manufacturing and experimental plant of Tom Swift and his father. Farthest away from the house was the big shed where once Tom had kept a balloon, but which was now given over to his several airships. In front of it was a big, level grassy space, needed to enable the aircraft to get a "running start" before they could mount into the clouds.

"See anything of Koku?" whispered Ned.

"No," answered Tom, in the same cautious voice. "I guess he must be hiding—"

"There he goes now!" hissed Ned, pointing to a big figure that was approaching the hangar. It was undoubtedly that of the giant, and he could be seen, in the dim light, stalking cautiously along.

"I wonder where the uninvited guests are?" asked Tom.

"Probably in the airship shed," answered Ned. "Koku was after them as soon as the alarm went off, and they couldn't have gotten away. They must be inside there yet. But what can their game be?"

"It's hard to say," admitted Tom. "They may be trying to get something belonging to me, or they may imagine they can pick up some valuable secrets. Or they may—" He stopped suddenly, and then exclaimed:

"Come on, Ned! They're after one of the airships! That's it! My big biplane is all ready to start, and they can get it in motion inside of a few seconds. Oh, why didn't I hurry?" he added, bitterly.

But the hangar was still some distance away, and it would take two or three minutes of running to reach it.

Meanwhile, and at the instant Tom had his thought of the possible theft of his biggest aircraft, something happened.

The doors of the shed were suddenly thrown open, and the two boys could see the large airship being wheeled

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out. The hazy light of the moon behind the clouds shone on the expanse of white planes, and on the fish-tail rudder, one of Tom's latest ideas.

"Hey, there!" cried Tom, warningly.

"Leave that alone!" yelled Ned.

"Koku! Koku!" shouted Tom, shrilly. "Get after those fellows!"

"Me get!" boomed out the giant, in his deep voice.

He had been standing near the entrance to the hangar, probably waiting for developments, and watching for the arrival of Tom and Ned. The big form was seen to leap forward, and then several dark shadows swarmed from around the airship, and were seen to fling themselves upon the giant.

"That's a fight!" cried Ned. "They're attacking him!"

"Koku can take care of himself!" murmured Tom. "But come on. I don't see what their game is."

He understood a moment later, however, for while several of the midnight visitors were engaged in a hand-to-hand tussle with the giant there came a sharp, throbbing roar of the airship motor in motion. The propellers were being whirled rapidly about.

"Koku! Koku!" cried Tom, for he was still some distance off. "Never mind them! Don't let the airship be taken!"

But Koku could only grunt. Big and strong as he was, half a dozen men attacking him at once hampered him. He threw them from him, one after another, and was gradually making his way toward the now slowly-moving airship. But would he be in time?

Tom and Ned could not hope to reach the machine before Koku, though they were running at top speed.

"Koku! Koku!" yelled Tom. "Don't let them get away!"

But Koku could only grunt—harder this time—for he fell heavily, being tripped by a stick thrust between his legs. He lay for a moment stunned.

"They're going to get away!" panted Tom, making an effort to increase his speed.

"That's what!" agreed Ned.

Even as they spoke the roar of the airship motor increased. Several of the dark forms which had been engaged in the struggle with Koku were seen to pick themselves up, and run toward the airship, that was now in motion, moving on the bicycle wheels over the grass plot, preparatory to mounting upward in the sky.

"Stop! Stop!" commanded Tom. But it was all in vain.

The men leaped aboard the airship, which could carry six persons, and a moment later, with a deafening roar, as the engine opened up full, the big craft shot upward, taking away all but two of the midnight visitors. These, who had seemingly been stunned by Koku, now arose from the ground, and staggered off in the darkness.

"Get them!" cried Tom.

"We must see to Koku!" added Ned, "Look, there goes your airship, Tom!"

"Yes, I know. But we can't stop that now. Let's see if we can get a clue in these fellows!"

He pointed toward the two who had run off in the dark underbrush surrounding the hangar plaza, and he and Ned trailed them as well as they could. But from the first they knew it would be useless, for there were many hiding places, and, a little way beyond, was a clump of trees.

After a short search Tom gave up reluctantly, and came back to where Koku was now sitting on the ground.

"Are you hurt?" he asked of the giant.

"My mind hurt—that all," said the big man.

"I guess he means his feelings are hurt," Tom explained. "Do you know who they were, Koku?"

"No, master."

"But we must do something!" cried Ned. "They've got your airship, Tom."

"I know it," said the young inventor, calmly. "But we can't do anything now. You can hardly hear her, let alone see her. She's moving fast!"

He pointed upward to the darkness. Like some black bird of prey the airship was already lost to sight, though it would have seemed as if her white planes might render her visible. But she had moved so swiftly that, during the short search, she had already disappeared.

"Aren't you going to do anything?" asked Ned.

"Certainly," spoke Tom. "I'm going to telephone an alarm to all the nearby towns. This is certainly a queer

game, Ned."

## CHAPTER XII. A STRANGE DISAPPEARANCE

Disappointed and puzzled, Tom and Ned went to where Koku was standing in rather a dazed attitude. The giant, like all large bodies, moved slowly, not only bodily but mentally. He could understand exactly what had happened, except that he had not prevailed over the "pygmies" who had attacked him. They had been too many for him.

"Let's take a look inside," suggested Tom, when, by another glance upward, he had made sure that all trace of his big airship was gone. "Maybe we can get a clue. Then, Koku, you tell us what happened."

"It all happened to me," said the giant, simply. "Me no make anything happen to them."

"That's about right," laughed Tom, ruefully. "It all happened to us."

The lights in the hangar were switched on, but a careful search revealed little. The men, half a dozen or more, had come evidently well prepared for the taking away of Tom Swift's airship, and they had done so.

Entrance had been effected by forcing a small side door. True, the burglar alarm had given notice of the presence of the men, but Tom and Ned had not acted quite quickly enough. Koku had been at the hangar almost as soon as the men themselves, but he had watched and waited for orders, instead of going in at once, and this had given the intruders time to wheel out the craft and start the motor.

"Why didn't you jump right in on them when you saw what they were up to, Koku?" asked Tom.

"Me wait for master. Me think master want to see who men were. Me go in—they run."

"Well, of course that's so, in a way," admitted Tom. "They probably would have run, but they'd have run WITHOUT my airship instead of WITH it, if they hadn't had time to get it outside the hangar. However, there's no use in crying over lost biplanes. The next thing is how to get her back. Did you know any of the men, Koku?"

"No, master."

"Then we haven't any clue that way. They laid their plans well. They just let you tangle yourself up with them, Koku, while the head ones got the motor going; an easy matter, since it was all ready to start. Then they tripped you, Koku, and as many of them as could, made a jump for the machine. Then they were off."

"Well, what's the next thing to do?" asked Ned, when another look about the shed had shown that not the slightest clue was available.

"I'm going to do some telephoning," Tom stated. "A big airship like mine can't go scooting around the country without being noticed. And those fellows can't go on forever. They've got to have gasoline and oil, and to get them they'll have to come down. I'll get it back, sooner or later; but the question is: Why did they take her?"

"To sell," suggested Ned.

"I think not," Tom said. "A big airship like mine isn't easy to sell. People who would buy it would ask questions that might not easily be answered. I'm inclined to think that some other reason made them take her, and it's up to us to find out what it was. Let's go into the house."

"Hark!" suddenly exclaimed Ned, holding up his hand for silence. They all heard footsteps outside the hangar.

Tom sprang to the door, flashing his electric light, and a voice exclaimed:

"Golly! Chicken thieves!"

"Oh, is it you, Eradicate?" asked the young inventor, with a laugh. "No, it isn't chicken thieves—they were after bigger game this time."

"Suffin happen?" asked the colored man. "Massa Swift he heah a noise, an' see a light, an' he sent me out yeah t' see what all am gwine on."

"Yes, something happened," admitted Tom. "They got the Eagle, Rad."

"What! Yo' big airship?"

"Yes."

"Huh! Dat's too bad, Massa Tom. I suah am sorry t' heah dat. Who done it?"

"We don't know, Rad."

"Maybe it was dat low-down cousin ob mine what tried t' git mah chickens, onct!"

"No, Rad, it wasn't your cousin. But I'll telephone the alarm to the police. They may be able to help me get the Eagle back."

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Within the next hour several messages were sent to the authorities of nearby towns, asking them to be on the watch for the stolen airship. This was about all that could be done, and after Mr. Swift had been told the story of the night's happenings, everyone went back to bed again.

Further search the next morning brought forth no clues, though Tom, Ned and the others beat about in the bushes where the men had disappeared.

One or two reports were heard from surrounding towns, to the effect that several persons had heard a strange throbbing sound in the night, that, possibly, was caused by the passage of the airship overhead. One such report came from Waterford, the home town of Mr. Damon.

"Let's go over there," suggested Ned, to his chum. "I'd like to see our friend, and maybe we can get some other clues by circulating around there."

"Oh, I don't know," spoke Tom, rather listlessly.

"Why not?" Ned wanted to know.

"Well, I ought to be working on my photo telephone," was the answer. "I've got a new idea now. I'm going to try a different kind of current, and use a more sensitive plate. And I'll use a tungsten filament lamp in the sending booth."

"Oh, let your experiments go for a little while, Tom," suggested Ned. "Come on over to Mr. Damon's. The trouble with you is that you keep too long at a thing, once you start."

"That's the only way to succeed," remarked Tom. "Really, Ned, while I feel sorry about the airship, of course, I ought to be working on my telephone. I'll get the Eagle back sooner or later."

"That's not the way to talk, Tom. Let's follow up this clue."

"Well, if you insist on it I suppose I may as well go. We'll take the little monoplane. I've fixed her up to carry double. I guess—"

Tom Swift broke off suddenly, as the telephone at his elbow rang.

"Hello," he said, taking off the receiver. "Yes, this is Tom Swift. Oh, good morning, Mrs. Damon! Eh! What's that? Mr. Damon has disappeared? You don't tell me! Disappeared! Yes, yes, I can come right over. Be there in a few minutes. Eh? You don't know what to make of it? Oh, well, maybe it can easily be explained. Yes, Ned Newton and I will be right over. Don't worry."

Tom hung up the receiver and turned to his chum.

"What do you think of that?" he asked.

"What is it?"

"Why, Mr. Damon mysteriously vanished last night, and this morning word came from his bankers that every cent of his fortune had disappeared! He's lost everything!"

"Maybe—maybe—" hesitated Ned.

"No, Mr. Damon isn't that kind of a man," said Tom, stoutly. "He hasn't made away with himself."

"But something is wrong!"

"Evidently, and it's up to us to find out what it is. I shouldn't be surprised but that he knew of this coming trouble and started out to prevent it if he could."

"But he wouldn't disappear and make his wife worry."

"No, that's so. Well, we'll have to go over there and find out all about it."

"Say, Tom!" exclaimed Ned, as they were getting the small, but swift monoplane ready for the flight, "could there be any connection with the disappearance of Mr. Damon and the taking of the Eagle?"

Tom started in surprise.

"How could there be?" he asked.

"Oh, I don't know," answered Ned. "It was only an idea."

"Well, we'll see what Mrs. Damon has to say," spoke the young inventor, as he took his seat beside Ned, and motioned to Koku to twirl the propeller.

## CHAPTER XIII. THE TELEPHONE PICTURE

"Oh, Tom Swift! I'm so glad to see you!"

Mrs. Damon clasped her arms, in motherly fashion, about the young inventor. He held her close, and his own eyes were not free from tears as he witnessed the grief of his best friend's wife.

"Now, don't worry, Mrs. Damon," said Tom, sympathetically. "Everything will be all right," and he led her to a chair.

"All right, Tom! How can it be?" and the lady raised a tear-stained face. "My husband has disappeared, without a word! It's just as if the earth had opened and swallowed him up! I can't find a trace of him! How can it be all right?"

"Well, we'll find him, Mrs. Damon. Don't worry. Ned and I will get right to work, and I'll have all the police and detectives within fifty miles on the search—if we have to go that far."

"Oh, it's awfully good of you, Tom. I—I didn't know who else to turn to in my trouble but you."

"And why shouldn't you come to me? I'd do anything for you and Mr. Damon. Now tell me all about it."

Tom and Ned had just arrived at the Damon home in the airship, to find the wife of the eccentric man almost distracted over her husband's strange disappearance.

"It happened last night," Mrs. Damon said, when she was somewhat composed. "Last night about twelve o'clock."

"Twelve o'clock!" cried Tom, in surprise "Why that's about the time—"

He stopped suddenly.

"What were you going to say?" asked Mrs. Damon.

"Oh—nothing," answered Tom. "I—I'll tell you later. Go on, please."

"It is all so confusing," proceeded Mrs. Damon. "You know my husband has been in trouble of late—financial trouble?"

"Yes," responded Tom, "he mentioned it to me."

"I don't know any of the details," sighed Mrs. Damon, "but I know he was mixed up with a man named Peters."

"I know him, too," spoke Tom, grimly.

"My husband has been very gloomy of late," went on Mrs. Damon. "He foolishly entrusted almost his entire fortune to that man, and last night he told me it was probably all gone. He said he saw only the barest chance to save it, but that he was going to take that chance."

"Did he go into details?" asked Tom.

"No, that was all he said. That was about ten o'clock. He didn't want to go to bed. He just sat about, and he kept saying over and over again: 'Bless my tombstone!' 'Bless the cemetery!' and all such stuff as that. You know how he was," and she smiled through her tears.

"Yes," said Tom. "I know. Only it wasn't like him to bless such grewsome things. He was more jolly."

"He hasn't been, of late," sighed his wife. "Well, he sat about all the evening, and he kept figuring away, trying, I suppose, to find some way out of his trouble."

"Why didn't he come to my father?" cried Tom. "I told him he could have all the money he needed to tide him over."

"Well, Mr. Damon was queer that way," said his wife. "He wanted to be independent. I urged him to call you up, but he said he'd fight it out alone."

"As I said, we sat there, and he kept feeling more and more blue, and blessing his funeral, and the hearse and all such things as that. He kept looking at the clock, too, and I wondered at that."

"Are you expecting someone?" I asked him. He said he wasn't, exactly, but I made sure he was, and finally, about half-past eleven, he put on his hat and went out."

"Where are you going?" I asked him."

"Oh, just to get a breath of air. I can't sleep," he said. "I didn't think much of that, as he often used to go out and walk about a bit before going to bed. So he went out, and I began to see about locking up, for I never trust the

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servants."

"It must have been about an hour later when I heard voices out in front. I looked, and I saw Mr. Damon talking to a man."

"Who was he?" asked Tom, eagerly, on the alert for the slightest clue.

"I thought at the time," said Mrs. Damon, "that it was one of the neighbors. I have learned since, however, that it was not. Anyhow, this man and Mr. Damon stood talking for a little while, and then they went off together. I didn't think it strange at the time, supposing he was merely strolling up and down in front with Mr. Blackson, who lives next door. He often had done that before."

"Well, I saw that the house was locked up, and then I sat down in a chair to wait for Mr. Damon to come back. I was getting sleepy, for we don't usually stay up so late. I suppose I must have dozed off, but I was suddenly awakened by hearing a peculiar noise. I sat up in alarm, and then I realized that Mr. Damon had not come in."

"I was frightened then, and I called my maid. It was nearly one o'clock, and my husband never stays out as late as that. We went next door, and found that Mr. Blackson had not been out of his house that evening. So it could not have been he to whom Mr. Damon was speaking."

"We roused up other neighbors, and they searched all about the grounds, thinking he might have been overcome by a sudden faint. But we could not find him. My husband had disappeared—mysteriously disappeared!" and the lady broke into sobs.

"Now don't worry," said Tom, soothingly, as he put his arms about her as he would have done to his own mother, had she been alive, "We'll get him back!"

"But how can you? No one knows where he is."

"Oh, yes!" said Tom, confidently, "Mr. Damon himself knows where he is, and unless he has gone away voluntarily, I think you will soon hear from him."

"What do you mean by—voluntarily?" asked the wife.

"First let me ask you a question," came from Tom. "You said you were awakened by a peculiar noise. What sort of a sound was it?"

"Why, a whirring, throbbing noise, like—like—"

She paused for a comparison.

"Like an airship?" asked Tom, with a good deal of eagerness.

"That was it!" cried Mrs. Damon. "I was trying to think where I had heard the sound before. It was just like the noise your airship makes, Tom!"

"That settles it!" exclaimed the young inventor.

"Settles what?" asked Ned.

"The manner of Mr. Damon's disappearance. He was taken away—or went away—in my airship—the airship that was stolen from my shed last night!"

Mrs. Damon stared at Tom in amazement.

"Why—why—how could that be?" she asked.

Quickly Tom told of what had happened at his place.

"I begin to see through it," he said. "There is some plot here, and we've got to get to the bottom of it. Mr. Damon either went with these men in the airship willingly, or he was taken away by force. I'm inclined to think he went of his own accord, or you would have heard some outcry, Mrs. Damon."

"Well, perhaps so," she admitted. "But would he go away in that manner without telling me?"

"He might," said Tom, willing to test his theory on all sides. "He might not have wanted you to worry, for you know you dislike him to go up an airships."

"Yes, I do. Oh, if I only thought he did go away of his own accord, I could understand it. He went, if he did, to try and save his fortune."

"It does look as though he had an appointment with someone, Tom," suggested Ned. "His looking at the clock, and then going out, and all that."

"Yes," admitted the young inventor, "and now I'm inclined to change my theory a bit. It may have been some other airship than mine that was used."

"How so?" asked Ned.

"Because the men who took mine were unprincipled fellows. Mr. Damon would not have gone away with men

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who would steal an airship."

"Not if he knew it," admitted Ned. "Well, then, let's consider two airships—yours and the other that came to keep the appointment with Mr. Damon. If the last is true, why should he want to go away in an airship at midnight? Why couldn't he take a train, or an auto?"

"Well, we don't know all the ins and outs," admitted Tom. "Taking a midnight airship ride is rather strange, but that may have been the only course open. We'll have to let the explanation go until later. At any rate, Mrs. Damon, I feel sure that your husband did go off through the air—either in my Eagle or in some other craft."

"Well, I'm glad to hear you say so, Tom Swift, though it sounds a dreadful thing to say. But if he did go off of his own accord, I know he did it for the best. And he may not have told me, for fear I would worry. I can understand that. But why isn't he back now?"

Tom had been rather dreading that question. It was one he had asked himself, and he had found no good answer for it. If there had been such need of haste, that an airship had to be used, why had not Mr. Damon come back ere this? Unless, as Tom feared to admit, even to himself, there had been some accident.

Half a dozen theories flashed through his mind, but he could not select a good, working one,—particularly as there were no clues. Disappearing in an airship was the one best means of not leaving a trace behind. An auto, a motor boat, a train, a horse and carriage—all these could be more or less easily traced. But an airship—

If Mr. Damon wanted to cover up his tracks, or if he had been taken away, and his captors wanted to baffle pursuit, the best means had been adopted.

"Now don't you worry," advised Tom to Mrs. Damon. "I know it looks funny, but I think it will come out all right. Ned and I will do all we can. Mr. Damon must have known what he was about. But, to be on the safe side, we'll send out a general alarm through the police."

"Oh, I don't know what I'd done if you hadn't come to help me!" exclaimed Mrs. Damon.

"Just you leave it to me!" said the young inventor, cheerfully. "I'll find Mr. Damon!"

But, though he spoke thus confidently, Tom Swift had not the slightest notion, just then, of how to set about his difficult task. He had had hard problems to solve before, so he was not going to give up this one. First he wanted to think matters out, and arrange a plan of action.

He and Ned made a careful examination of the grounds of the Damon homestead. There was little they could learn, though they did find where an airship had landed in a meadow, not far away, and where it had made a flying start off again.

Carefully Tom looked at the marks made by the wheels of the airship.

"They're the same distance apart as those on the Eagle," he said to his chum, "and the tires are the same. But that isn't saying anything, as lots of airships have the same equipment. So we won't jump to any conclusions that way."

Tom and Ned interviewed several of the neighbors, but beyond learning that some of them had heard the throbbing of the midnight airship, that was as far as they got on that line.

There was nothing more they could do in Waterford, and, leaving Mrs. Damon, who had summoned a relative to stay with her, the two chums made a quick trip back through the air to Shopton. As Eradicate came out to help put away the monoplane Tom noticed that the colored man was holding one hand as though it hurt him.

"What's the matter, Rad?" asked the young investor.

"Oh, nuffin—jest natcherly nuffin, Massa Tom."

But Eradicate spoke evasively and in a manner that roused Tom's suspicions.

"Boomerang, your mule, didn't kick you; did he?"

"No, sah, Massa Tom, no sah. 'Twern't nuffin laik dat."

"But what was it? Your hand is hurt!"

"Well, Massa Tom, I s'pose I done bettah tell yo' all. I'se had a shock!"

"A shock?"

"Yas, sah. A shock. A lickrish shock."

"Oh, you mean an electrical shock. That's too bad. I suppose you must have touched a live wire."

"No, sah. 'Twern't dat way."

"How was it, then?"

"Well, yo' see, Massa Tom, I were playin' a joke on Koku."

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"Oh, you were; eh? Then I suppose Koku shocked you," laughed Tom.

"No, sah. I—I'll tell you. Dat giant man he were in de telefoam boof in de pattern shop—you know—de one where yo' all been tryin' to make pishures."

"Yes, I know. Go on!" exclaimed Tom, impatiently.

"Well, he were in dere, Massa Tom, an' I slipped into de boof in de next shop—de odder place where yo' all been 'speermentin'. I called out on de telefoam, loud laik de Angel Gabriel gwine t' holler at de last trump: 'Look out, yo' ole sinnah!' I yell it jest t' scare Koku."

"I see," said Tom, a bit severely, for he did not like Eradicate interfering with the instruments. "And did you scare Koku?"

"Oh, yas, sah, Massa Tom. I skeered him all right; but suffin else done happen. When I put down de telefoam I got a terrible shock. It hurts yit!"

"Well," remarked Tom, "I suppose I ought to feel sorry for you, but I can't. You should let things alone. Now I've got to see if you did any damage. Come along, Ned."

Tom was the first to enter the telephone booth where Eradicate had played the part of the Angel Gabriel. He looked at the wires and apparatus, but could see nothing wrong.

Then he glanced at the selenium plate, on which he hoped, some day, to imprint an image from over the wire. And, as he saw the smooth surface he started, and cried.

"Ned! Ned, come here quick!"

"What is it?" asked his chum, Crowding into the booth.

"Look at that plate! Tell me what you see!"

Ned looked.

"Why—why it's Koku's picture!" he gasped.

"Exactly!" cried Tom. "In some way my experiment has succeeded when I was away. Eradicate must have made some new connection by his monkeying. Ned, it's a success! I've got my first photo telephone picture! Hurray!"

## CHAPTER XIV. MAKING IMPROVEMENTS

Tom Swift was so overjoyed and excited that for a few moments he capered about, inside the booth, and outside, knocking against his chum Ned, clapping him on the back, and doing all manner of boyish "stunts."

"It's a success, Ned! I've struck it!" cried Tom, in delight.

"Ouch! You struck ME, you mean!" replied Ned, rubbing his shoulder, where the young inventor had imparted a resounding blow of joy.

"What of it?" exclaimed Tom. "My apparatus works! I can send a picture by telephone! It's great, Ned!"

"But I don't exactly understand how it happened," said Ned, in some bewilderment, as he gazed at the selenium plate.

"Neither do I," admitted Tom, when he had somewhat calmed down. "That is, I don't exactly understand what made the thing succeed now, when it wouldn't work for me a little while ago. But I've got to go into that. I'll have to interview that rascal Eradicate, and learn what he did when he played that trick on Koku. Yes, and I'll have to see Koku, too. We've got to get at the bottom of this, Ned."

"I suppose so. You've got your hands full, Tom, with your photo telephone, and the disappearance of Mr. Damon."

"Yes, and my own airship, too. I must get after that. Whew! A lot of things to do! But I like work, Ned. The more the better."

"Yes, that's like you, Tom. But what are you going to get at first?"

"Let me see; the telephone, I think. I'll have Rad and Koku in here and talk to them. I say, you Eradicate!" he called out of the door of the shop, as he saw the colored man going past, holding his shocked arm tenderly.

"Yas, sah, Massa Tom, I'se comin'! What is it yo' all wants, Massa Tom?"

"I want you to show me exactly what you did to the wires, and other things in here, when you played that Angel Gabriel trick on your partner Koku."

"Partner! He ain't mah partner!" exclaimed Eradicate with a scowl, for there was not the best of feeling between the two. Eradicate had served in the Swift family many years, and he rather resented the coming of the giant, who performed many services formerly the province of the colored man.

"Well, never mind what he is, Rad," laughed Tom. "You just show me what you did. Come now, something happened in here, and I want to find out what it was."

"Oh, suffin done happened all right, Massa Tom. Yas, sah! Suffin done happened!" cried Eradicate, with such odd emphasis that Tom and Ned both laughed.

"An' suffin happened to me," went on the colored man, rubbing his shocked arm.

"Well, tell us about it," suggested Tom.

"It was dish yeah way," proceeded Eradicate. And he told more in detail how, seeing Koku cleaning and sweeping out the other telephone booth, he had thought of the trick to play on him. Both telephones had what are called "amplifiers" attached, that could be switched on when needed. These amplifiers were somewhat like the horn of a phonograph—they increased, or magnified the sound, so that one could hear a voice from any part of the shop, and need not necessarily have the telephone receiver at his ear.

Seeing Koku near the instrument, Eradicate had switched on the amplifier, and had called into his instrument, trying to scare the giant. And he did startle Koku, for the loud voice, coming so suddenly, sent the giant out of the booth on the run.

"But you must have done something else," insisted Tom. "Look here, Rad," and the young inventor pointed to the picture on the plate.

"Mah gracious sakes!" gasped the colored man. "Why dat's Koku hisse'f!" and he looked in awe at the likeness.

"That's what you did, Rad!"

"Me? I done dat? No, sah, Massa Tom. I neber did! No, sah!" Eradicate spoke emphatically.

"Yes you did, Rad. You took that picture of Koku over my photo telephone, and I want you to show me exactly what you did—what wires and switches you touched and changed, and all that."

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"Yo—yo' done say I tuck dat pishure, Massa Tom?"

"You sure did, Rad."

"Well—well, good land o' massy! An' I done dat!"

Eradicate stared in wonder at the image of the giant on the plate, and shook his head doubtfully.

"I—I didn't know I could do it. I never knowed I had it in me!" he murmured.

Tom and Ned laughed long and loud, and then the young inventor said:

"Now look here, Rad. You've done me a mighty big service, though you didn't know it, and I want to thank you. I'm sorry about your arm, and I'll have the doctor look at it. But now I want you to show me all the things you touched when you played that joke on Koku. In some way you did what I haven't been able to do, You took the picture. There's probably just one little thing I've overlooked, and you stumbled on it by accident. Now go ahead and show me."

Eradicate thought for a moment, and then said:

"Well, I done turned on de current, laik I seen you done, Massa Tom."

"Yes, go on. You connected the telephone."

"Yas, sah. Den I switched on that flyer thing yo' all has rigged up."

"You switched on the amplifier, yes. Go on."

"An'—an' den I plugged in dish year wire," and the colored man pointed to one near the top of the booth.

"You switched on that wire, Rad! Why, great Scott, man! That's connected to the arc light circuit—it carries over a thousand volts. And you switched that into the telephone circuit?"

"Dat's what I done did, Massa Tom; yas, Bah!"

"What for?"

"Why, I done want t' make mah voice good an' loud t' skeer dat rascal Koku!"

Tom stared at the colored man in amazement.

"No wonder you got a shock!" exclaimed the young inventor. "You didn't get all the thousand volts, for part of it was shunted off; but you got a good charge, all right. So that's what did the business; eh? It was the combination of the two electrical circuits that sent the photograph over the wire."

"I understand it now, Rad; but you did more than I've been able to do. I never, in a hundred years, would have thought of switching on that current. It never occurred to me. But you, doing it by accident, brought out the truth. It's often that way in discoveries. And Koku was standing in the other telephone booth, near the plate there, when you switched in this current, Rad?"

"Yas, sah, Massa Tom. He were. An' yo' ought t' see him hop when he heard mah voice yellin' at him. Ha! ha! ha!"

Eradicate chuckled at the thought. Then a pain in his shocked arm made him wince. A wry look passed over his face.

"Yas, sah, Koku done jump about ten feet," he said. "An'—an' den I jump too. Ain't no use in denyin' dat fact. I done jump when I got dat shock!"

"All right, Rad. You may go now. I think I'm on the right track!" exclaimed Tom. "Come on, Ned, we'll try some experiments, and we'll see what we can do."

"No shocks though—cut out the shocks, Tom," stipulated his chum.

"Oh, sure! No shocks! Now let's bet busy and improve on Eradicate's Angel Gabriel system."

Tom made a quick examination of the apparatus.

"I understand it, I think," he said. "Koku was near the plate in the other booth when Rad put on the double current. There was a light there, and in an instant his likeness was sent over the wire, and imprinted on this plate. Now let's see what we can do. You go to that other booth, Ned. I'll see if I can get your picture, and send you mine. Here, take some extra selenium plates along. You know how to connect them."

"I think so," answered Ned.

"This image is really too faint to be of much use," went on Tom, as he looked at the one of Koku. "I think I can improve on it. But we're on the right track."

A little later Ned stood in the other booth, while Tom arranged the wires, and made the connections in the way accidentally discovered by Eradicate. The young inventor had put in a new plate, carefully putting away the one with the picture of the giant, This plate could be used again, when the film, into which the image was imprinted,

## Tom Swift And His Photo Telephone

had been washed off.

"All ready, Ned," called Tom, over the wire, when he was about to turn the switch. "Stand still, and I'll get you."

The connection was made, and Tom uttered a cry of joy. For there, staring at him from the plate in front of him was the face of Ned.

It was somewhat reduced in size, of course, and was not extra clear, but anyone who knew Ned could have told he was at the other end of the wire.

"Do you get me, Tom?" called Ned, over the telephone.

"I sure do! Now see if you can get me."

Tom made other connections, and then looked at the sending plate of his instrument, there being both a sending and receiving plate in each booth, just as there was a receiver and a transmitter to the telephone.

"Hurray! I see you, Tom!" cried Ned, over the wire. "Say, this is great!"

"It isn't as good as I want it," went on Tom. "But it proves that I'm right. The photo telephone is a fact, and now persons using the wire can be sure of the other person they are conversing with. I must tell dad. He wouldn't believe I could do it!"

And indeed Mr. Swift was surprised when Tom proved, by actual demonstration, that a picture could be sent over the wire.

"Tom, I congratulate you!" declared the aged inventor. "It is good news!"

"Yes, but we have bad news of Mr. Damon," said Tom, and he told his father of the disappearance of the eccentric man. Mr. Swift at once telephoned his sympathy to Mrs. Damon, and offered to do anything he could for her.

"But Tom can help you more than I can," he said. "You can depend on Tom."

"I know that," replied Mrs. Damon, over the wire.

And certainly Tom Swift had many things to do now. He hardly knew at what to begin first, but now, since he was on the right road in regard to his photo telephone, he would work at improving it.

And to this end he devoted himself, after he had sent out a general alarm to the police of nearby towns, in regard to the disappearance of Mr. Damon. The airship clue, he believed, as did the police, would be a good one to work on.

For several days after this nothing of moment occurred. Mr. Damon could not be located, and Tom's airship might still be sailing above the clouds as far as getting any trace of it was concerned.

Meanwhile the young inventor, with the help of Ned, who was given a leave of absence from the bank, worked hard to improve the photo telephone.

## CHAPTER XV. THE AIRSHIP CLUE

"Now Ned, we'll try again. I'm going to use a still stronger current, and this is the most sensitive selenium plate I've turned out yet. We'll see if we can't get a better likeness of you—one that will be plainer."

It was Tom Swift who was speaking, and he and his chum had just completed some hard work on the new photo telephone. Though the apparatus did what Tom had claimed for it, still he was far from satisfied. He could transmit over the wire the picture of a person talking at the telephone, but the likeness was too faint to make the apparatus commercially profitable.

"It's like the first moving pictures," said Tom. "They moved, but that was about all they did."

"I say," remarked Ned, as he was about to take his place in the booth where the telephone and apparatus were located, "this double-strength electrical current you're speaking of won't shock me; will it? I don't want what happened to Eradicate to happen to me, Tom."

"Don't worry. Nothing will happen. The trouble with Rad was that he didn't have the wires insulated when he turned that arc current switch by mistake—or, rather, to play his joke. But he's all right now."

"Yes, but I'm not going to take any chances," insisted Ned. "I want to be insulated myself."

"I'll see to that," promised Tom. "Now get to your booth."

For the purpose of experiments Tom had strung a new line between two of his shops. They were both within sight, and the line was not very long; but, as I have said, Tom knew that if his apparatus would work over a short distance, it would also be successful over a long one, provided he could maintain the proper force of current, which he was sure could be accomplished.

"And if they can send pictures from Monte Carlo to Paris I can do the same," declared Tom, though his system of photo telephony was different from sending by a telegraph system—a reproduction of a picture on a copper plate. Tom's apparatus transmitted the likeness of the living person.

It took some little time for the young inventor, and Ned working with him, to fix up the new wires and switch on the current. But at last it was complete, and Ned took his place at one telephone, with the two sensitive plates before him. Tom did the same, and they proceeded to talk over the wire, first making sure that the vocal connection was perfect.

"All ready now, Ned! We'll try it," called Tom to his chum, over the wire. "Look straight at the plate. I want to get your image first, and then I'll send mine, if it's a success,"

Ned did as requested, and in a few minutes he could hear Tom exclaim, joyfully:

"It's better, Ned! It's coming out real clear. I can see you almost as plainly as if you were right in the booth with me. But turn on your light a little stronger."

Tom could hear, through the telephone, his chum moving about, and then he caught a startled exclamation.

"What's the matter?" asked Tom anxiously.

"I got a shock!" cried Ned. "I thought you said you had this thing fixed. Great Scott, Tom! It nearly yanked the arm off me! Is this a joke?"

"No, old man. No, of course not! Something must be wrong. I didn't mean that. Wait, I'll take a look. Say, it does seem as if everything was going wrong with this invention. But I'm on the right track, and soon I'll have it all right. Wait a second. I'll be right over."

Tom found that it was only a simple displacement of a wire that had given Ned a shock, and he soon had this remedied.

"Now we'll try again," he said. This time nothing wrong occurred, and soon Tom saw the clearest image he had yet observed on his telephone photo plate.

"Switch me on now, Ned," he called to his chum, and Ned reported that he could see Tom very plainly.

"So far—so good," observed Tom, as he came from the booth. "But there are several things I want yet to do."

"Such as what?" questioned Ned.

"Well, I want to arrange to have two kinds of pictures come over the wire. I want it so that a person can go into a booth, call up a friend, and then switch on the picture plate, so he can see his friend as well as talk to him. I want this plate to be like a mirror, so that any number of images can be made to appear on it. In that way it can be

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used over and over again. In fact it will be exactly like a mirror, or a telescope. No matter how far two persons may be apart they can both see and talk to one another."

"That's a big contract, Tom."

"Yes, but you've seen that it can be done. Then another thing I want to do is to have it arranged so that I can make a photograph of a person over a wire."

"Meaning what?"

"Meaning that if a certain person talks to me over the wire, I can turn my switch, and get a picture of him here at my apparatus connected with my telephone. To do that I'll merely need a sending apparatus at the other end of the telephone line—not a receiving machine."

"Could you arrange it so that the person who was talking to you would have his picture taken whether he wanted it or not?" asked Ned.

"Yes, it might be done," spoke Tom, thoughtfully. "I could conceal the sending plate somewhere in the telephone booth, and arrange the proper light, I suppose."

"That might be a good way in which to catch a criminal," went on Ned. "Often crooks call up on the telephone, but they know they are safe. The authorities can't see them—they can only hear them. Now if you could get a photograph of them while they were telephoning—"

"I see!" cried Tom, excitedly. "That's a great idea! I'll work on that, Ned."

And, all enthusiasm, Tom began to plan new schemes with his photo telephone.

The young inventor did not forget his promise to help Mrs. Damon. But he could get absolutely no clue to her husband's whereabouts. Mr. Damon had completely and mysteriously disappeared. His fortune, too, seemed to have been swallowed up by the sharpers, though lawyers engaged by Tom could fasten no criminal acts on Mr. Peters, who indignantly denied that he had done anything unlawful.

If he had, he had done it in such a way that he could not be brought to justice. The promoter was still about Shopton, as well groomed as ever, with his rose in his buttonhole, and wearing his silk hat. He still speeded up and down Lake Carlopa in his powerful motor boat. But he gave Tom Swift a wide berth.

Late one night, when Tom and Ned had been working at the new photo telephone, after all the rest of the household had retired, Tom suddenly looked up from his drawings and exclaimed:

"What's that?"

"What's what?" inquired Ned.

"That sound? Don't you hear it? Listen!"

"It's an airship—maybe yours coming back!" cried the young banker.

As he spoke Ned did hear, seemingly in the air above the house, a curious, throbbing, pulsating sound.

"That's so! It is an airship motor!" exclaimed Tom. "Come on out!"

Together they rushed from the house, but, ere they reached the yard, the sound had ceased. They looked up into the sky, but could see nothing, though the night was light from a full moon.

"I certainly heard it," said Tom.

"So did I," asserted Ned. "But where is it now?"

They advanced toward the group of work-buildings. Something showing white in the moonlight, before the hangar, caught Ned's eyes.

"Look!" he exclaimed. "There's an airship, Tom!"

The two rushed over to the level landing place before the big shed. And there, as if she had just been run out for a flight, was the Eagle. She had come back in the night, as mysteriously as she had been taken away.

## CHAPTER XVI. SUCCESS

"Well, this gets me!" exclaimed Tom.

"It sure is strange," agreed Ned. "How did she come here?"

"She didn't come alone—that's sure," went on Tom. "Someone brought her here, made a landing, and got away before we could get out."

The two chums were standing near the Eagle, which had come back so mysteriously.

"Just a couple of seconds sooner and we'd have seen who brought her here," went on Tom. "But they must have shut off the motor some distance up, and then they volplaned down. That's why we didn't hear them."

Ned went over and put his hand on the motor.

"Ouch!" he cried, jumping back. "It's hot!"

"Showing that she's been running up to within a few minutes ago," said Tom. "Well, as I said before, this sure does get me. First these mysterious men take my airship, and then they bring her back again, without so much as thanking me for the use of her."

"Who in the world can they be?" asked Ned.

"I haven't the least idea. But I'm going to find out, if it's at all possible. We'll look the machine over in the morning, and see if we can get any clues. No use in doing that now. Come on, we'll put her back in the hangar."

"Say!" exclaimed Ned, as a sudden idea came to him. "It couldn't be Mr. Damon who had your airship; could it, Tom?"

"I don't know. Why do you ask that?"

"Well, he might have wanted to get away from his enemies for a while, and he might have taken your Eagle, and—"

"Mr. Damon wouldn't trail along with a crowd like the one that took away my airship," said Tom, decidedly. "You've got another guess coming, Ned. Mr. Damon had nothing to do with this."

"And yet the night he disappeared an airship was heard near his house."

"That's so. Well, I give up. This is sure a mystery. We'll have a look at it in the morning. One thing I'll do, though, I'll telephone over to Mr. Damon's house and see if his wife has heard any news. I've been doing that quite often of late, so she won't think anything of it. In that way we can find out if he had anything to do with my airship. But let's run her into the shed first."

This was done, and Koku, the giant, was sent to sleep in the hangar to guard against another theft. But it was not likely that the mysterious men, once having brought the airship back, would come for it again.

Tom called up Mrs. Damon on the telephone, but there was no news of the missing man. He expressed his sympathy, and said he would come and see her soon. He told Mrs. Damon not to get discouraged, adding that he, and others, were doing all that was possible. But, in spite of this, Mrs. Damon, naturally, did worry.

The next morning the two chums inspected the airship, so mysteriously returned to them. Part after part they went over, and found nothing wrong. The motor ran perfectly, and there was not so much as a bent spoke in the landing wheels. For all that could be told by an inspection of the craft she might never have been out of the hangar.

"Hello, here's something!" cried Tom, as he got up from the operator's seat, where he had taken his place to test the various controls.

"What is it?" asked Ned.

"A button. A queer sort of a button. I never had any like that on my clothes, and I'm sure you didn't. Look!" and Tom held out a large, metal button of curious design.

"It must have come off the coat of one of the men who had your airship, Tom," said his chum. "Save it. You may find that it's a clue."

"I will. No telling what it may lead to. Well, I guess that's all we can find."

And it was. But Tom little realized what a clue the button was going to be. Nothing more could be learned by staring at the returned airship, so he and Ned went back to the house.

Tom Swift had many things to do, but his chief concern was for the photo telephone. Now that he was near the

## Tom Swift And His Photo Telephone

goal of success he worked harder than ever. The idea Ned had given him of being able to take the picture of a person at the instrument—without the knowledge of that person—appealed strongly to Tom.

"That's going to be a valuable invention!" he declared, but little he knew how valuable it would prove to him and to others.

It was about a week later when Tom was ready to try the new apparatus. Meanwhile he had prepared different plates, and had changed his wiring system. In the days that had passed nothing new had been learned concerning the whereabouts of Mr. Damon, nor of the men who had so mysteriously taken away Tom's airship.

All was in readiness for the trial. Tom sent Ned to the booth that he had constructed in the airship hangar, some distance away from the house. The other booth Tom had placed in his library, an entirely new system of wires being used.

"Now Ned," explained Tom, "the idea is this! You go into that booth, just as if it were a public one, and ring me up in the regular way. Of course we haven't a central here, but that doesn't matter. Now while I'm talking to you I want to see you. You don't know that, of course."

"The point is to see if I can get your picture while you're talking to me, and not let you know a thing about it."

"Think you can do it, Tom?"

"I'm going to try. We'll soon know. Go ahead."

A little later Ned was calling up his chum, as casually as he could, under the circumstances.

"All right!" called Tom to his chum. "Start in and talk. Say anything you like—it doesn't matter. I want to see if I can get your picture. Is the light burning in your booth?"

"Yes, Tom."

"All right then. Go ahead."

Ned talked of the weather—of anything. Meanwhile Tom was busy. Concealed in the booth occupied by Ned was a sending plate. It could not be seen unless one knew just where to look for it. In Tom's booth was a receiving plate.

The experiment did not take long. Presently Tom called to Ned that he need stay there no longer.

"Come on to the house," invited the young inventor, "and we'll develop this plate." For in this system it was necessary to develop the receiving plate, as is done with an ordinary photographic one. Tom wanted a permanent record.

Eagerly the chums in the dark room looked down into the tray containing the plate and the developing solution.

"Something's coming out!" cried Ned, eagerly.

"Yes! And it's you!" exclaimed Tom. "See, Ned, I got your picture over the telephone. Success! I've struck it! This is the best yet!"

At that moment, as the picture came out more and more plainly, someone knocked on the door of the dark room.

"Who is it?" asked Tom.

"Gen'man t' see you," said Eradicate. "He say he come from Mistah Peters!"

"Mr. Peters—that rascally promoter!" whispered Tom to his chum. "What does this mean?"

## CHAPTER XVII. THE MYSTERIOUS MESSAGE

Tom Swift and his chum looked at one another strangely for a moment in the dim, red light of the dark room. Then the young inventor spoke:

"I'm not going to see him. Tell him so, Rad!"

"Hold on a second," suggested Ned. "Maybe you had better see him, Tom. It may have something to do with Mr. Damon's lost fortune."

"That's so! I didn't think of that. And I may get a clue to his disappearance, though I don't imagine Peters had anything to do with that. Wait, Rad. Tell the gentleman I'll see him. Did he give any name, Rad?"

"Yas, sah. Him done say him Mistah Boylan."

"The same man who called to see me once before, trying to get me to do some business with Peters," murmured Tom. "Very well, I'll see him as soon as this picture is fixed. Tell him to wait, Rad."

A little later Tom went to where his caller awaited in the library. This time there were no plans to be looked at, the young inventor having made a practice of keeping all his valuable papers locked in a safe.

"You go into the next room, Ned," Tom had said to his chum. "Leave the door open, so you can hear what is said."

"Why, do you think there'll be trouble? Maybe we'd better have Koku on hand to—"

"Oh, no, nothing like that," laughed Tom. "I just want you to listen to what's said so, if need be, you can be a witness later. I don't know what their game is, but I don't trust Peters and his crowd. They may want to get control of some of my patents, and they may try some underhanded work. If they do I want to be in a position to stop them."

"All right," agreed Ned, and he took his place.

But Mr. Boylan's errand was not at all sensational, it would seem. He bowed to Tom, perhaps a little distantly, for they had not parted the best of friends on a former occasion.

"I suppose you are surprised to see me," began Mr. Boylan.

"Well, I am, to tell the truth," Tom said, calmly.

"I am here at the request of my employer, Mr. Peters," went on the caller. "He says he is forming a new and very powerful company to exploit airships, and he wants to know whether you would not reconsider your determination not to let him do some business for you."

"No, I'm afraid I don't care to go into anything like that," said Tom.

"It would be a good thing for you," proceeded Mr. Boylan, eagerly. "Mr. Peters is able to command large capital, and if you would permit the use of your airships—or one of them—as a model, and would supervise the construction of others, we could confidently expect large sales. Thus you would profit, and I am frank to admit that the company, and Mr. Peters, also, would make money. Mr. Peters is perfectly free to confess that he is in business to make money, but he is also willing to let others share with him. Come now, what do you say?"

"I am sorry, but I shall have to say the same thing I said before," replied Tom. "Nothing doing!"

Mr. Boylan glanced rather angrily at the young inventor, and then, with a shrug of his shoulders, remarked:

"Well, you have the say, of course. But I would like to remind you that this is going to be a very large airship company, and if your inventions are not exploited some others will be. And Mr. Peters also desired me to say that this is the last offer he would make you."

"Tell him," said Tom, "that I am much obliged, but that I have no business that I can entrust to him. If he wishes to make some other type of airship, that is his affair. Good-day."

As Mr. Boylan was going out Tom noticed a button dangling from the back of his caller's coat. It hung by a thread, being one of the pair usually sewed on the back of a cutaway garment.

"I think you had better take off that button before it falls," suggested Tom. "You may lose it, and perhaps it would be hard to match."

"That's so. Thank you!" said Mr. Boylan. He tried to reach around and get it, but he was too stout to turn easily, especially as the coat was tight-fitting.

"I'll get it for you," offered Tom, as he pulled it off. "There is one missing, though," he said, as he handed the

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button to the man. And then Tom started as he saw the pattern of the one in his hand.

"One gone? That's too bad," murmured Mr. Boylan. "Those buttons were imported, and I doubt if I can replace them. They are rather odd."

"Yes," agreed Tom, gazing as if fascinated at the one he still held. "They are rather odd."

And then, as he passed it over, like a flash it came to him where he had seen a button like that before. He had found it in his airship, which had been so mysteriously taken away and returned.

Tom could hardly restrain his impatience until Mr. Boylan had gone. The young inventor had half a notion to produce the other button, matching the one he had just pulled off his visitor's coat, and tell where he had found it. But he held himself back. He wanted to talk first to Ned.

And, when his chum came in, Tom cried:

"Ned, what do you think? I know who had my airship!"

"How?" asked Ned, in wonder.

"By that button clue! Yes, it's the same kind—they're as alike as twins!" and Tom brought out the button which he had put away in his desk. "See, Boylan had one just like this on the back of his coat. The other was missing. Here it is—it was in the seat of my airship, where it was probably pulled off as he moved about. Ned, I think I've got the right clue at last."

Ned said nothing for several seconds. Then he remarked slowly:

"Well, Tom, it proves one thing; but not the other."

"What do you mean?"

"I mean that it may be perfectly true that the button came off Mr. Boylan's coat, but that doesn't prove that he wore it. You can be reasonably sure that the coat was having a ride in your Eagle, but was Boylan in the coat? That's the question."

"In the coat? Of course he was in it!" cried Tom.

"You can't be sure. Someone may have borrowed his coat to take a midnight ride in the airship."

"Mr. Boylan doesn't look to be the kind of a man who would lend his clothes," remarked Tom.

"You never can tell. Someone may have borrowed it without his knowledge. You'd better go a bit slow, Tom."

"Well, maybe I had. But it's a clue, anyhow."

Ned agreed to this.

"And all I've got to do is to find out who was in the coat when it was riding about in my airship," went on Tom.

"Yes," said Ned, "and then maybe you'll have some clue to the disappearance of Mr. Damon."

"Right you are! Come on, let's get busy!"

"As if we hadn't been busy all the while!" laughed Ned. "I'll lose my place at the bank if I don't get back soon."

"Oh, stay a little longer—a few days," urged Tom. "I'm sure that something is going to happen soon. Anyhow my photo telephone is about perfected. But I've just thought of another improvement."

"What is it?"

"I'm going to arrange a sort of dictaphone, or phonograph, so I can get a permanent record of what a person says over the wire, as well as get a picture of him saying it. Then everything will be complete. This last won't be hard to do, as there are several machines on the market now, for preserving a record of telephone conversations. I'll make mine a bit different, though."

"Tom, is there any limit to what you're going to do?" asked Ned, admiringly.

"Oh, yes, I'm going to stop soon, and retire," laughed the young inventor.

After talking the matter over, Tom and his chum decided to wait a day or so before taking any action in regard to the button clue to the takers of the airship. After all, no great harm had been done, and Tom was more anxious to locate Mr. Damon, and try to get back his fortune, as well as to perfect his photo telephone, than he was to discover those who had helped themselves to the Eagle.

Tom and Ned put in some busy days, arranging the phonograph attachment. It was easy, compared to the hard work of sending a picture over the wire. They paid several visits to Mrs. Damon, but she had no news of her missing husband, and, as the days went by, she suffered more and more under the strain.

Finally Tom's new invention was fully completed. It was a great success, and he not only secured pictures of

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Ned and others over the wire, as he talked to them, but he imprinted on wax cylinders, to be reproduced later, the very things they said.

It was a day or so after he had demonstrated his new attachment for the first time, that Tom received a most urgent message from Mrs. Damon.

"Tom," she said, over the telephone, "I wish you would call. Something very mysterious has happened."

"Mr. Damon hasn't come back; has he?" asked Tom eagerly.

"No—but I wish I could say he had. This concerns him, however. Can you come?"

"I'll be there right away."

In his speedy monoplane Tom soon reached Waterford. Ned did not accompany him this time.

"Now what is it, Mrs. Damon?" asked the young inventor.

"About half an hour before I called you," she said, "I received a mysterious message."

"Who brought it?" asked Tom quickly.

"No one. It came over the telephone. Someone, whose voice I did not know, said to me: 'Sign the land papers, and send them to us, and your husband will be released.'"

"That message came over the wire?" cried Tom, excitedly.

"Yes," answered Mrs. Damon. "Oh, I am so frightened! I don't know what to do!" and the lady burst into tears.

## CHAPTER XVIII. ANOTHER CALL

Tom Swift, for the moment, did not know what to do. It was a strange situation, and one he had never thought of. What did the mysterious message mean? He must think it all out, and plan some line of action. Clearly Mrs. Damon was not able to do so.

"Now let's get at this in some kind of order," suggested the youth, when Mrs. Damon had calmed herself. It was his habit to have a method about doing things. "And don't worry," he advised. "I am certain some good will come of this. It proves one thing, that's sure."

"What is it, Tom?"

"That Mr. Damon is alive and well. Otherwise the message would not have said he would be 'released.' It wasn't from anyone you know; was it?"

"No, I'm sure I never heard the voice before."

Tom paused a moment to think how useful his photo telephone and phonograph arrangement might have been in this case.

"How did the telephone call come in?" inquired the young inventor.

"In the usual way," answered Mrs. Damon. "The bell rang, and, as I happened to be near the instrument, I answered it, as I often do, when the maid is busy. A voice asked if I was Mrs. Damon, and of course I said I was. Then I heard this: 'Sign the land papers, and send them to us, and your husband will be released.'"

"Was that all?" Tom asked.

"I think so—I made a note of it at the time." Mrs. Damon looked into a small red book. "No, that wasn't all," she said, quickly. "I was so astonished, at hearing those strange words about my husband, that I didn't know what to say. Before I could ask any questions the voice went on to say, rather abruptly: 'We will call you again.'"

"That's good!" cried Tom. "I only hope they do it while I am here. Perhaps I can get some clue as to who it was called you. But was this all you heard?"

"Yes, I'm sure that was all. I had forgotten about the last words, but I see I have them written down in my note book."

"Did you ask any questions?" inquired Tom.

"Oh, indeed I did! As soon as I got over being stunned by what I heard, I asked all sorts of questions. I demanded to know who was speaking, what they meant, where they were, and all that. I begged them to tell me something of my husband."

"And what did they say?"

"Not a thing. There wasn't a sound in the telephone. The receiver was hung up, breaking the connection after that message to me—that mysterious message."

"Yes, it was mysterious," agreed Tom, thoughtfully. "I can't understand it. But didn't you try to learn from the central operator where the call had come from?"

"Oh, yes, indeed, Tom! As soon as I found out the person speaking to me had rung off, I got the girl in the exchange."

"And what did she say?"

"That the call came from an automatic pay station in a drug store in town. I have the address. It was one of those telephones where you put your money for the call in a slot."

"I see. Well, the first thing to do is for me to go to that drug store and find out, if I can, who used the telephone about that time. It's a slim chance, but we'll have to take it. Was it a man's voice, or a woman's?"

"Oh, a man's, I'm sure. It was very deep and heavy. No woman could speak like that."

"So much is settled, anyhow. Now about the land papers—what was meant?"

"I'll tell you," said Mrs. Damon. "You know part of our property—considerable land and some buildings—is in my name. Mr. Damon had it fixed so a number of years ago, in order to protect me. No one could get this property, and land, unless I signed the deeds, or agreed to sign them. Now all of Mr. Damon's fortune is tied up in some of Mr. Peters's companies. That is why my husband has disappeared."

"He didn't disappear—he was taken away against his will; I'm positive of that!" exclaimed Tom.

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"Perhaps so," agreed Mrs. Damon, sadly. "But those are the papers referred to, I'm sure."

"Probably," assented Tom. "The rascals want to get control of everything—even your possessions. Not satisfied with ruining Mr. Damon, they want to make you a beggar, too. So they are playing on your fears. They promise to release your husband if you will give them the land."

"Yes, that must be it, Tom. What would you advise me to do? I am so frightened over this!"

"Do? Don't you do anything!" cried Tom. "We'll fool these rascals yet. If they got those papers they might release Mr. Damon, or they might not—fearing he would cause their arrest later. But we'll have him released anyhow, and we'll save what is left of your fortune. Put those land papers in a safe—deposit box, and let me do the rest. I'm going to catch those fellows!"

"But how, Tom? You don't know who they are. And a mere message over a telephone won't give you a clue to where they are."

"Perhaps not an ordinary message," agreed Tom. "But I'm going to try some of my new inventions. You said they told you they were going to call again?"

"That's what they said, Tom."

"Well, when they do, I want to be here. I want to listen to that message. If you will allow me, I'll take up my residence here for a while, Mrs. Damon."

"Allow you? I'll be only too glad if you will, Tom. But I thought you were going to try to get some clue from the drug store where the mysterious message came from."

"I'll let Ned Newton do that. I want to stay here."

Tom telephoned to Ned to meet him at Mrs. Damon's house, and also to bring with him certain things from the laboratory. And when Ned arrived in an auto, with various bits of apparatus, Tom put in some busy hours.

Meanwhile Ned was sent to the drug store, to see if any clues could be obtained there as to who had sent the message. As Tom had feared, nothing could be learned. There were several automatic 'phones in the place, and they were used very often during the day by the public. The drug clerks took little or no notice of the persons entering or leaving the booths, since the dropping of a coin in the slot was all that was necessary to be connected with central.

"Well, we've got to wait for the second call here," said Tom, who had been busy during Ned's absence. He had fitted to Mrs. Damon's telephone a recording wax phonograph cylinder, to get a record of the speaker's voice. And he had also put in an extension telephone, so that he could listen while Mrs. Damon talked to the unknown.

"There, I guess we're ready for them," said Tom, late that afternoon. But no queer call came in that day. It was the next morning, about ten o'clock, after Mrs. Damon had passed a restless night, that the telephone bell rang. Tom, who was on the alert, was at his auxiliary instrument in a flash. He motioned to Mrs. Damon to answer on the main wire.

"Hello," she spoke into the transmitter. "Who is this?"

"Are you Mrs. Damon?" Tom heard come over the wire in a deep voice, and by the manner in which Mrs. Damon signalled the young inventor knew that, at the other end of the line, was the mysterious man who had spoken before.

## CHAPTER XIX. THE BUZZING SOUND

"Are you Mrs. Damon?" came the question again—rather more impatiently this time, Tom thought.

"Yes," answered the lady, glancing over at Tom. The extension telephone was in the same room. Softly Tom switched on the phonograph attachment. The little wax cylinder began to revolve noiselessly, ready to record the faintest word that came over the wire.

"You got a message from me yesterday," went on the hoarse voice. In vain Tom tried to recall whether or not he had heard it before. He could not place it.

"Who are you?" asked Mrs. Damon. She and Tom had previously agreed on a line of talk. "Tell me your name, please."

"There's no need for any names to be used," went on the unknown at the other end of the wire. "You heard what I said yesterday. Are you willing to send me those land title papers, if we release your husband?"

"But where shall I send them?" asked Mrs. Damon, to gain time.

"You'll be told where. And listen—no tricks! You needn't try to find out who I am, nor where I am. Just send those papers if you want to see your husband again."

"Oh, how is he? Tell me about him! You are cruel to keep him a prisoner like this! I demand that you release him!"

Tom had not told Mrs. Damon to say this. It came out of her own heart—she could not prevent the agonized outburst.

"Never mind about that, now," came the gruff voice over the wire. "Are you willing to send the papers?"

Mrs. Damon looked over to Tom for silent instructions. He nodded his head in assent.

"Yes, I—I will send them if you tell me where to get them to you—if you will release Mr. Damon," said the anxious wife. "But tell me who you are—and where you are!" she begged.

"None of that! I'm not looking to be arrested. You get the papers ready, and I'll let you know to-morrow, about this time, where to send them."

"Wait a minute!" called Mrs. Damon, to gain more time. "I must know just what papers you want."

"All right, I'll tell you," and he began to describe the different ones.

It took a little time for the unknown to give this information to Mrs. Damon. The man was very particular about the papers. There were trust deeds, among other things, and he probably thought that once he had possession of them, with Mrs. Damon's signature, even though it had been obtained under a threat, he could claim the property. Later it was learned that such was not the case, for Mrs. Damon, with Tom's aid, could have proved the fraud, had the scoundrels tried to get the remainder of the Damon fortune.

But at the time it seemed to the helpless woman that everything she owned would be taken from her. Though she said she did not care, as long as Mr. Damon was restored to her.

As I have said, the telephoning of the instructions about the papers took some time. Tom had counted on this, and had made his plans accordingly.

As soon as the telephone call had come in, Tom had communicated with a private detective who was in waiting, and this man had gone to the drug store whence the first call had come. He was going to try to make the arrest of the man telephoning.

But for fear the scoundrel would go to a different instrument, Tom took another precaution. This was to have one of the operators in the central exchange on the watch. As soon as Mrs. Damon's house was in connection with another telephone, the location of the latter would be noted, and another private detective would be sent there. Thus Tom hoped to catch the man at the 'phone.

Meanwhile Tom listened to the hoarse voice at the other end of the wire, giving the directions to Mrs. Damon. Tom hoped that soon there would be an arrest made.

Meanwhile the talk was being faithfully recorded on the phonograph cylinder. And, as the man talked on, Tom became aware of a curious undercurrent of sound. It was a buzzing noise, that Tom knew did not come from the instrument itself. It was not the peculiar tapping, singing noise heard in a telephone receiver, caused by induced electrical currents, or by wire trouble.

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"This is certainly different," mused Tom. He was trying to recall where he had heard the noise before. Sometimes it was faint, and then it would gradually increase, droning off into faintness once more. Occasionally it was so loud that Mrs. Damon could not hear the talk about the papers, and the man would have to repeat.

But finally he came to an end.

"This is all now," he said, sharply. Tom heard the words above the queer, buzzing, humming sound. "You are keeping me too long. I think you are up to some game, but it won't do you any good, Mrs. Damon. I'll 'phone you to-morrow where to send the papers. And if you don't send them—if you try any tricks—it will be the worse for you and Mr. Damon!"

There was a click, that told of a receiver being placed back on the hook, and the voice ceased. So, also, did the queer, buzzing sound over which Tom puzzled.

"What can it have been?" he asked. "Did you hear it, Mrs. Damon?"

"What, Tom?"

"That buzzing sound."

"Yes, I heard, but I didn't know what it was. Oh, Tom, what shall I do?"

"Don't worry. We'll see if anything happened. They may have caught that fellow. If not I'll plan another scheme."

Tom's first act was to call up the telephone exchange to learn where the second call had come from. He got the information at once. The address was in the suburbs. The man had not gone to the drug store this time.

"Did the detective get out to that address?" asked Tom eagerly of the manager.

"Yes. As soon as we were certain that he was the party you wanted, your man got right after him, Mr. Swift."

"That's good, I hope he catches him!" cried the young inventor. "We'll have to wait and find out."

"He said he'd call up and let you know as soon as he reached the place," the telephone manager informed Tom.

There was nothing to do but wait, and meanwhile Tom did what he could to comfort Mrs. Damon. She was quite nervous and inclined to be hysterical, and the youth thought it wise to have a cousin, who had come to stay with her, summon the doctor.

"But, Tom, what shall I do about those papers?" Mrs. Damon asked him. "Shall I send them?"

"Indeed not!"

"But I want Mr. Damon restored to me," she pleaded. "I don't care about the money. He can make more."

"Well, we'll not give those scoundrels the satisfaction of getting any money out of you. Just wait now, I'll work this thing out, and find a way to catch that fellow. If I could only think what that buzzing sound was—"

Then, in a flash, it came to Tom.

"A sawmill! A planing mill!" he cried. "That's what it was! That fellow was telephoning from some place near a sawmill!"

The telephone rang in the midst of Tom's excited comments.

"Yes—yes!" he called eagerly. "Who is it—what is it?"

"This is Larsen—the private detective you sent."

"Oh, yes, you were at the drug store."

"Yes, Mr. Swift. Well, that party didn't call up from here."

"I know, Larsen. It was from another station. We're after him. Much obliged to you. Come on back."

Tom was sure his theory was right. The man had called up the Damon house from some telephone near a sawmill. And a little later Tom's theory was proved to be true. He got a report from the second detective. Unfortunately the man had not been able to reach the telephone station before the unknown speaker had departed.

"Was the place near a sawmill?" asked Tom, eagerly.

"It was," answered the detective over the wire. "The telephone is right next door to one. It's an automatic pay station and no one seems to have noticed who the man was who telephoned. I couldn't get a single clue. I'm sorry."

"Never mind," said Tom, as cheerfully as he could. "I think I'm on the right track now. I'm going to lay a trap for this fellow."

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## CHAPTER XX. SETTING THE TRAP

Troublesome problems seemed to be multiplying for Tom Swift. He admitted as much himself after the failure to capture the man who had telephoned to Mrs. Damon. He had hoped that his plan of sending detectives to the location of the telephones would succeed. Since it had not the youth must try other means.

"Now, Ned," he said to his chum, when they were on their way from Mrs. Damon's, it being impossible to do anything further there. "Now, Ned, we've got to think this thing out together."

"I'm willing, Tom. I'll do what I can."

"I know you will. Now the thing to do is to go at this thing systematically. Otherwise we'll be working around in a circle, and won't get anywhere. In the first place, let's set down what we do know. Then we'll put down what we don't know, and go after that."

"Put down what you don't know?" exclaimed Ned. "How are you going to put down a thing when you don't know it?"

"I mean we can put a question mark after it, so to speak. For instance we don't know where Mr. Damon is, but we want to find out."

"Oh, I see. Well, let's start off with the things we do know."

The two friends were at Tom's house by now, having come from Waterford in Tom's airship. After thinking over all the exciting happenings of the past few days, Tom remarked: "Now, Ned, for the things we do know. In the first place Mr. Damon is missing, and his fortune is about gone. There is considerable left to Mrs. Damon, however, but those scoundrels may get that away from her, if we don't watch out. Secondly, my airship was taken and brought back, with a button more than it had when it went away. Said button exactly matched one off Mr. Boylan's coat."

"Thirdly, Mr. Damon was either taken away or went away, in an airship—either in mine or someone else's. Fourthly, Mrs. Damon has received telephonic communications from the man, or men, who have her husband. Fifthly, Mr. Peters, either legally or illegally, is responsible for the loss of Mr. Damon's fortune. Now: there you are—for the things we do know."

"Now for the things we don't know. We don't know who has taken Mr. Damon away, nor where he is, to begin with the most important."

"Hold on, Tom, I think you're wrong," broke in Ned.

"In what way?"

"About not knowing who is responsible for the taking away of Mr. Damon. I think it's as plain as the nose on your face that Peters is responsible."

"I can't see it that way," said Tom, quickly. "I will admit that it looks as though Boylan had been in my airship, but as for Peters taking Mr. Damon away—why, Peters is around town all the while, and if he had a hand in the disappearance of Mr. Damon, do you think he'd stay here, when he knows we are working on the case? And would he send Boylan to see me if Boylan had been one of those who had a hand in it? They wouldn't dare, especially as they know I'm working on the case."

"Peters is a bad lot. I'll grant you, though, he was fair enough to pay for my motor boat. I don't believe he had anything to do with taking Mr. Damon away."

"Do you think he was the person who was talking to Mrs. Damon about the papers?"

"No, Ned. I don't. I listened to that fellow's voice carefully. It wasn't like Peters's. I'm going to put it in the phonograph, too, and let you listen to it. Then see what you say."

Tom did this, a little later. The record of the voice, as it came over the wire, was listened to from the wax cylinder, and Ned had to admit that it was not much like that of the promoter.

"Well, what's next to be done?" asked the young banker.

"I'm going to set a trap," replied Tom, with a grin.

"Set a trap?"

"Yes, a sort of mouse-trap. I'm glad my photo telephone is now perfected, Ned."

"What has that got to do with it?"

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"That's going to be my trap, Ned. Here is my game. You know this fellow—this strange unknown—is going to call up Mrs. Damon to-morrow. Well, I'll be ready for him. I'm going to put in the booth where he will telephone from, one of my photo telephones—that is, the sending apparatus. In Mrs. Damon's house, attached to her telephone, will be the receiving plate, as well as the phonograph cylinder."

"When this fellow starts to talk he'll be sending us his picture, though he won't know it, and we'll be getting a record of his voice. Then we'll have him just where we want him."

"Good!" cried Ned. "But, Tom, there's a weak spot in your mouse-trap."

"What is it?"

"How are you going to know which telephone the unknown will call up from? He may go to any of a hundred, more or less."

"He might—yes. But that's a chance we've got to take. It isn't so much of a chance, though when you stop to think that he will probably go to some public telephone in an isolated spot, and, unless I'm much mistaken he will go to a telephone near where he was to-day. He knows that was safe, since we didn't capture him, and he's very likely to come back."

"But to make the thing as sure as possible, I'm going to attach my apparatus to a number of public telephones in the vicinity of the one near the sawmill. So if the fellow doesn't get caught in one, he will in another. I admit it's taking a chance; but what else can we do?"

"I suppose you're right, Tom. It's like setting a number of traps."

"Exactly. A trapper can't be sure where he is going to get his catch, so he picks out the place, or run-way, where the game has been in the habit of coming. He hides his traps about that place, and trusts to luck that the animal will blunder into one of them."

"Criminals, to my way of thinking, are a good bit like animals. They seem to come back to their old haunts. Nearly any police story proves this. And it's that on which I am counting to capture this criminal. So I'm going to fit up as many telephones with my photo and phonograph outfit, as I can in the time we have. You'll have to help me. Luckily I've got plenty of selenium plates for the sending end. I'll only need one at the receiving end. Now we'll have to go and have a talk with the telephone manager, after which we'll get busy."

"You've overlooked one thing, Tom."

"What's that, Ned?"

"Why, if you know about which telephone this fellow is going to use, why can't you have police stationed near it to capture him as soon as he begins to talk?"

"Well, I did think of that, Ned; but it won't work."

"Why not?"

"Because, in the first place this man, or some of his friends, will be on the watch. When he goes into the place to telephone there'll be a look-out, I'm sure, and he'd either put off talking to Mrs. Damon, or he'd escape before we had any evidence against him."

"You see I've got to get evidence that will stand in the courts to convict this fellow, and if he's scared off before we get that, the game will be up."

"That's what my photo telephone will do—it will get the evidence, just as a dictaphone does. In fact, I'm thinking of working it out on those lines, after I clear up this business."

"Just suppose we had detectives stationed at all the telephones near the sawmill, where this fellow would be likely to go. In the first place no one has seen him, as far as we know, so there's no telling what sort of a chap he is. And you can't go up to a perfect stranger and arrest him because you think he is the man who has spirited away Mr. Damon."

"Another thing. Until this fellow has talked, and made his offer to Mrs. Damon, to restore her husband, in exchange for certain papers, we have no hold over him."

"But he has done that, Tom. You heard him, and you have his voice down on the wax cylinder."

"Yes, but I haven't had a glimpse of his face. That's what I want, and what I'm going to get. Suppose he does go into the telephone booth, and tell Mrs. Damon an address where she is to send the papers. Even if a detective was near at hand he might not catch what was said. Or, if he did, on what ground could he arrest a man who, very likely, would be a perfect stranger to him? The detective couldn't say: 'I take you into custody for telephoning an address to Mrs. Damon.' That, in itself, is no crime."

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"No, I suppose not," admitted Ned. "You've got this all thought out, Tom."

"I hope I have. You see it takes quite a combination to get evidence against a criminal—evidence that will convict him. That's why I have to be so careful in setting my trap."

"I see, Tom. Well, it's about time for us to get busy; isn't it?"

"It sure is. There's lots to do. First we'll go see the telephone people."

Tom explained to the 'phone manager the necessity for what he was about to do. The manager at once agreed to let the young inventor have a free hand. He was much interested in the photo telephone, and Tom promised to give his company a chance to use it on their lines, later.

The telephone near the sawmill was easily located. It was in a general store, and the instrument was in a booth. To this instrument Tom attached his sending plate, and he also substituted for the ordinary incandescent light, a powerful tungsten one, that would give illumination enough to cause the likeness to be transmitted over the wire.

The same thing was done to a number of the public telephones in that vicinity, each one being fitted up so that the picture of whoever talked would be transmitted over the wire when Tom turned the switch. To help the plan further the telephone manager marked a number of other 'phones, "Out of Order," for the time being.

"Now, I think we're done!" exclaimed the young inventor, with a sigh, late that night. He and Ned and the line manager had worked hard.

"Yes," answered the young banker, "the traps are set. The question is: Will our rat be caught?"

## CHAPTER XXI. THE PHOTO TELEPHONE

Tom Swift was taking, as he afterward confessed, "a mighty big chance." But it seemed the only way. He was working against cunning men, and had to be as cunning as they.

True, the man he hoped to capture, through the combination of his photo telephone and the phonograph, might go to some other instrument than one of those Tom had adjusted. But this could not be helped. In all he had put his new attachment on eight 'phones in the vicinity of the sawmill. So he had eight chances in his favor, and as many against him as there were other telephones in use.

"It's a mighty small margin in our favor," sighed Tom.

"It sure is," agreed Ned. They were at Mrs. Damon's house, waiting for the call to come in.

"But we couldn't do anything else," went on Tom.

"No," spoke Ned, "and I have a great deal of hope in the proverbial Swift luck, Tom."

"Well, I only hope it holds good this time!" laughed the young inventor.

"There are a good many things that can go wrong," observed Ned. "The least little slip-up may spoil your traps, Tom."

"I know it, Ned. But I've got to take the chance. We've just got to do something for Mrs. Damon. She's wearing herself out by worrying," he added in a low voice, for indeed the wife of his friend felt the absence of her husband greatly. She had lost flesh, she ate scarcely anything, and her nights were wakeful ones of terror.

"What if this fails?" asked Ned.

"Then I'm going to work that button clue to the limit," replied Tom. "I'll go to Boylan and see what he and Peters have to say."

"If you'd done as I suggested you'd have gone to them first," spoke Ned. "You'll find they're mixed up in this."

"Maybe; but I doubt it. I tell you there isn't a clue leading to Peters—as yet."

"But there will be," insisted Ned. "You'll see that that I'm right this time."

"I can't see it, Ned. As a matter of fact, I would have gone to Boylan about that button I found in my airship only I've been so busy on this photo telephone, and in arranging the trap, that I haven't had time. But if this fails—and I'm hoping it won't—I'll get after him," and there was a grim look on the young inventor's face.

It was wearying and nervous work—this waiting. Tom and Ned felt the strain as they sat there in Mrs. Damon's library, near the telephone. It had been fitted up in readiness. Attached to the receiving wires was a sensitive plate, on which Tom hoped would be imprinted the image of the man at the other end of the wire—the criminal who, in exchange for the valuable land papers, would give Mr. Damon his liberty.

There was also the phonograph cylinder to record the man's voice. Several times, while waiting for the call to come in, Tom got up to test the apparatus. It was in perfect working order.

As before, there was an extension telephone, so that Mrs. Damon could talk to the unknown, while Tom could hear as well. But he planned to take no part in the conversation unless something unforeseen occurred.

Mr. Damon was an enthusiastic photographer, and he had a dark room adjoining his library. It was in this dark room that Tom planned to develop the photo telephone plate.

On this occasion he was not going to use the metal plate in which, ordinarily, the image of the person talking appeared. That record was but a fleeting one, as in a mirror. This time Tom wanted a permanent picture that could, if necessary, be used in a court of justice.

Tom's plan was this: If the person who had demanded the papers came to one of the photo telephones, and spoke to Mrs. Damon, Tom would switch on the receiving apparatus. Thus, while the man was talking, his picture would be taken, though he would not know of the thing being done.

His voice would also be recorded on the wax cylinder, and he would be equally unaware of this.

When Tom had imprinted the fellow's image on the prepared plate, he would go quickly to the dark room and develop it. A wet print could be made, and with this as evidence, and to use in identification, a quick trip could be made to the place whence the man had telephoned. Tom hoped thus to capture him.

To this end he had his airship in waiting, and as soon as he had developed the picture he planned to rush off to the vicinity of the sawmill, and make a prisoner of the man whose features would be revealed to him over the

## Tom Swift And His Photo Telephone

wire.

It was a hazardous plan—a risky one—but it was the best that he could evolve. Tom had instructed Mrs. Damon to keep the man in conversation as long as possible, in order to give the young inventor himself time to rush off in his airship. But of course the man might get suspicious and leave. That was another chance that had to be taken.

"If I had thought of it in time," said Tom, musingly, as he paced up and down in the library waiting for the 'phone to ring, "if I had thought of it in time I would have rigged up two plates—one for a temporary, or looking-glass, picture, and the other for a permanent one. In that way I could rush off as soon as I got a glimpse of the fellow. But it's too late to do that now. I'll have to develop this plate."

Waiting is the most wearisome work there is. Tom and Ned found this to be the case, as they sat there, hoping each moment that the telephone bell would ring, and that the man at the other end of the wire would be the mysterious stranger. Mrs. Damon, too, felt the nervous strain.

"This is about the hour he called up yesterday," said Tom, in a low voice, after coming back from a trip to the window to see that his airship was in readiness. He had brought over to help in starting it, for he was using his most powerful and speedy craft, and the propellers were hard to turn.

"Yes," answered Mrs. Damon. "It was just about this hour, Tom. Oh, I do hope—"

She was interrupted by the jingle of the telephone bell. With a jump Tom was at the auxiliary instrument, while Mrs. Damon lifted off the receiver of her own telephone.

"Yes; what is it?" she asked, in a voice that she tried to make calm.

"Do you know who this is?" Tom heard come over the wire.

"Are you the—er—the person who was to give me an address where I am to send certain papers?"

"Yes. I'm the same one. I'm glad to see that you have acted sensibly. If I get the papers all right, you'll soon have your husband back. Now do as I say. Take down this address."

"Very well," assented Mrs. Damon. She looked over at Tom. He was intently listening, and he, too, would note the address given. The trap was about to be sprung. The game had walked into it. Just which telephone was being used Tom could not as yet tell. It was evidently not the one nearest the planing mill, for Tom could not hear the buzzing sound. It was well he had put his attachment on several instruments.

"One moment, please," said Mrs. Damon, to the unknown at the other end of the wire. This was in accordance with the pre-arranged plan.

"Well, what is it?" asked the man, impatiently. "I have no time to waste."

Tom heard again the same gruff tones, and he tried in vain to recognize them.

"I want you take down a message to Mr. Damon," said his wife. "This is very important. It can do you no harm to give him this message; but I want you to get it exact. If you do not promise to deliver it I shall call all negotiations off."

"Oh, all right I'll take the message; but be quick about it. Then I'll give you the address where you are to send the papers."

"This is the message," went on Mrs. Damon. "Please write it down. It is very important to me. Have you a pencil?"

"Yes, I have one. Wait until I get a bit of paper. It's so dark in this booth—wait until I turn on the light."

Tom could not repress a pleased and joyful exclamation. It was just what he had hoped the man would do—turn on the light in the booth. Indeed, it was necessary for the success of the trap that the light be switched on. Otherwise no picture could be transmitted over the wire. And the plan of having the man write down a message to Mr. Damon was arranged with that end in view. The man would need a light to see to write, and Tom's apparatus must be lighted in order to make it work. The plot was coming along finely.

"There!" exclaimed the man at the other end of the wire. "I have a light now. Go ahead with your message, Mrs. Damon. But make it short. I can't stay here long."

Then Mrs. Damon began dictating the message she and Tom had agreed upon. It was as long as they dared make it, for they wanted to keep the man in the booth to the last second.

"Dear Husband," began Mrs. Damon. What the message was does not matter. It has nothing to do with this story. Sufficient to say that the moment the man began writing it down, as Tom could tell over the sensitive wire, by the scratching of the pencil—at that moment Tom, knowing the light was on in the distant telephone booth,

## Tom Swift And His Photo Telephone

switched on the picture-taking apparatus. His receiving apparatus at once indicated that the image was being made on the sensitive plate.

It took only a few seconds of time, and with the plate in the holder Tom hastened to the dark room to develop it. Ned took his chum's place at the telephone, to see that all worked smoothly. The photo telephone had done its work. Whose image would be found imprinted on the sensitive plate? Tom's hands trembled so that he could scarcely put it in the developing solution.

## CHAPTER XXII. THE ESCAPE

Ned Newton, listening at the auxiliary telephone heard the man, to whom Mrs. Damon was dictating her message to her husband, utter an exclamation of impatience.

"I'm afraid I can't take down any more," he called. "That is enough. Now you listen. I want you to send me those papers."

"And I am willing to," went on Mrs. Damon, while Ned listened to the talk, the phonograph faithfully recording it.

"I wonder whose picture Tom will find," mused Ned.

The unknown, at the other end of the wire, began giving Mrs. Damon a description of just what papers he wanted, and how to mail them to him. He gave an address that Ned recognized as that of a cigar store, where many persons received their mail under assumed names. The postal authorities had, for a long time, tried to get evidence against it

"That's going to make it hard to get him, when he comes for the papers," thought Ned. "He's a foxy criminal, all right. But I guess Tom will turn the trick."

Mrs. Damon was carefully noting down the address. She really intended to send the papers, if it proved that there was no other way in which she could secure the release of her husband. But she did not count on all of Tom's plans. "Why doesn't he develop that plate?" thought Ned. "He'll be too late, in spite of his airship. That fellow will skip."

It was at that moment that Tom came into the library. He moved cautiously, for he realized that a loud sound in the room would carry to the man at the other end of the wire. Tom motioned for Ned to come to him. He held out a dripping photographic plate.

"It's Peters!" said Tom, in a hoarse whisper.

"Peters?" gasped Ned. "How could it be? His voice—"

"I know. It didn't sound a bit like Peters over the 'phone, but there's his picture, all right!"

Tom held up the plate. There, imprinted on it by the wonderful power of the young inventor's latest appliance, was the image of the rascally promoter. As plainly as in life he was shown, even to his silk hat and the flower in his button-hole. He was in a telephone booth—that much could be told from the photograph that had been transmitted over the wire, but which booth could not be said—they were nearly all alike.

"Peters!" gasped Ned. "I thought he was the fellow, Tom."

"Yes, I know. You were right, and I was wrong. But I did not recognize his voice. It was very hoarse. He must have a bad cold." Later this was learned to have been the case. "There's no time to lose," whispered Tom, while Mrs. Damon was doing her best to prolong the conversation in order to hold the man at the other end of the wire. "Ned, get central on the other telephone, and see where this call came from. Then we'll get there as fast as the airship will take us."

A second and temporary telephone line had been installed in the Damon home, and on this Ned was soon talking, while Tom, putting the photographic plate away for future use, rushed out to get his airship in shape for a quick flight. He had modified his plans. Instead of having a detective take a print of the photo telephone image, and make the arrest, Tom was going to try to capture Peters himself. He believed he could do it. One look at the wet plate was enough. He knew Peters, though it upset some of his theories to learn that it was the promoter who was responsible for Mr. Damon's disappearance.

The man at the other end of the wire was evidently getting impatient. Possibly he suspected some trick. "I've got to go now," he called to Mrs. Damon. "If I don't get those papers in the morning it will be the worse for Mr. Damon."

"Oh, I'll send you the papers," she said.

By this time Ned had gotten into communication with the manager of the central telephone exchange, and had learned the location of the instrument Peters was using. It was about a mile from the one near the sawmill.

"Come on!" called Tom to his chum, as the latter gave him this information. "The Firefly is tuned up for a hundred miles an hour! We'll be there in ten minutes! We must catch him red-handed, if possible!"

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"He's gone!" gasped Mrs. Damon as she came to the outer door, and watched Tom and Ned taking their places in the airship, while Koku prepared to twirl the propellers.

"Gone!" echoed Tom, blankly.

"Yes, he hung up the receiver."

"See if you can't get him back," suggested the young inventor. "Ask Central to ring that number again. We'll be there in a jiffy. Maybe he'll come to the telephone again. Or he may even call up his partners and tell them the game is working his way. Try to get him back, Mrs. Damon."

"I will," she said.

And, as she hurried back to the instrument, Tom and Ned shot up toward the blue sky in an endeavor to capture the man at the other telephone.

"And to think it was Peters!" cried Tom into Ned's ear, shouting to be heard above the roar of the motor exhaust.

"I thought he'd turn out to be mixed up in the affair," said Ned.

"Well, you were right. I was off, that time," admitted Tom, as he guided his powerful craft above the trees. "I was willing to admit that he had something to do with Mr. Damon's financial trouble, but as for kidnapping him—well, you never can tell."

They drove on at a breath-catching pace, and it seemed hardly a minute after leaving Mrs. Damon's house before Tom called:

"There's the building where the telephone is located."

"And now for that rascal Peters!" cried Ned.

The airship swooped down, to the great astonishment of some workmen nearby.

Hardly had the wheels ceased revolving on the ground, as Tom made a quick landing, than he was out of his seat, and running toward the telephone. He knew the place at once from having heard Ned's description, and besides, this was one of the places where he had installed his apparatus.

Into the store Tom burst, and made a rush for the 'phone booth. He threw open the door. The place was empty!

"The man—the man who was telephoning!" Tom called to the proprietor of the place.

"You mean that big man, with the tall hat, who was in there so long?"

"Yes, where is he?"

"Gone. About two minutes ago."

"Which way?"

"Over toward Shopton, and in one of the fastest autos that ever scattered dust in this section."

"He's escaped us!" said Tom to Ned. "But we'll get him yet! Come on!"

"I'm with you. Say, do you know what this looks like to me?"

"What?"

"It looks as if Peters was scared and was going to run away to stay!"

## CHAPTER XXIII. ON THE TRAIL

Such a crowd had quickly gathered about Tom's airship that it was impossible to start it. Men and boys, and even some girls and women, coming from no one knew where, stood about the machine, making wondering remarks about it.

"Stand back, if you please!" cried Tom, good-naturedly. "We've got to get after the fellow in the auto."

"You'll have hard work catching him, friend, in that rig," remarked a man. "He was fracturing all the speed laws ever passed. I reckon he was going nigh onto sixty miles an hour."

"We can make a hundred," spoke Ned, quietly.

"A hundred! Get out!" cried the man. "Nothing can go as fast as that!"

"We'll show you, if we once get started," said Tom. "I guess we'll have to get one of these fellows to twirl the propellers for us, Ned," he added. "I didn't think, or I'd have brought the self-starting machine," for this one of Tom's had to be started by someone turning over the propellers, once or twice, to enable the motor to begin to speed. On some of his aircraft the young inventor had attached a starter, something like the ones on the newest autos.

"What are you going to do?" asked Ned, as Tom looked to the priming of the cylinders.

"I'm going to get on the trail of Peters," he said. "He's at the bottom of the whole business; and it's a surprise to me. I'm going to trail him right down to the ground now, and make him give up Mr. Damon and his fortune,"

"But you don't know where he is, Tom."

"I'll find out. He isn't such an easy man to miss—he's too conspicuous. Besides, if he's just left in his auto we may catch him before he gets to Shopton."

"Do you think he's going there?"

"I think so. And I think, Ned, that he's become suspicious and will light out. Something must have happened, while he was telephoning, and he got frightened, as big a bluff as he is. But we'll get him. Come on! Will you turn over the propellers, please? I'll show you how to do it," Tom went on to a big, strong man standing close to the blades.

"Sure I'll do it," was the answer. "I was a helper once at an airship meet, and I know how."

"Get back out of the way in time," the young inventor warned him. "They start very suddenly, sometimes."

"All right, friend, I'll watch out," was the reply, and with Tom and Ned in their seats, the former at the steering wheel, the craft of the air was soon throbbing and trembling under the first turn, for the cylinders were still warm from the run from Mrs. Damon's house.

The telephone was in an outlying section of Waterford—a section devoted in the main to shops and factories, and the homes of those employed in various lines of manufacture. Peters had chosen his place well, for there were many roads leading to and from this section, and he could easily make his escape.

"But we'll get after him," thought Tom, grimly, as he let the airship run down the straight road a short distance on the bicycle wheels, to give it momentum enough so that it would rise.

Then, with the tilting of the elevation rudder, the craft rose gracefully, amid admiring cheers from the crowd. Tom did not go up very far, as he wanted to hover near the ground, to pick out the speeding auto containing Peters.

But this time luck was not with Tom. He and Ned did sight a number of cars speeding along the highway toward Shopton, but when they got near enough to observe the occupants they were disappointed not to behold the man they sought. Tom circled about for some time, but it was of no use, and then he headed his craft back toward Waterford.

"Where are you going?" asked Ned, yelling the words into the ear of his chum.

"Back to Mrs. Damon's," answered Tom, in equally loud tones.

It was impossible to talk above the roaring and throbbing of the motor, so the two lads kept silent until the airship had landed near Mrs. Damon's home.

"I want to see if Mrs. Damon is all right," Tom explained, as he jumped from the still moving machine. "Then we'll go to Shopton, and cause Peters's arrest. I can make a charge against him now, and the evidence of the photo

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telephone will convict him, I'm sure. And I also want to see if Mrs. Damon has had any other word."

She had not, however, though she was more nervous and worried than ever.

"Oh, Tom, what shall I do?" she exclaimed. "I am so frightened! What do you suppose they will do to Mr. Damon?"

"Nothing at all!" Tom assured her. "He will be all right. I think matters are coming to a crisis now, and very likely he'll be with you inside of twenty-four hours. The game is up, and I guess Peters knows it. I'm going to have him arrested at once."

"Shall I send those land papers, Tom?"

"Indeed you must not! But I'll talk to you about that later. Just put away that phonograph record of Peters's talk. I'll take along the photo telephone negative, and have some prints made—or, I guess, since we're going in the airship, that I'd better leave it here for the present. We'll use it as evidence against Peters. Come on, Ned."

"Where to now?"

"Peters's house. He's probably there, arranging to cover up his tracks when he lights out."

But Shallock Peters did better than merely cover up his tracks. He covered himself up, so to speak. For when Ned and Tom, after a quick flight in the airship, reached his house, the promoter had left, and the servants, who were quite excited, did not know where he had gone.

"He just packed up a few clothes and ran out," said one of the maids. "He didn't say anything about our wages, either, and he owes me over a month."

"Me too," said another.

"Well, if he doesn't pay me some of my back wages soon, I'll sue him!" declared the gardener. "He owes me more than three months, but he kept putting me off."

And, so it seemed, Peters had done with several of his employes. When the promoter came to Shopton he had taken an elaborate house and engaged a staff of servants. Peters was not married, but he gave a number of entertainments to which the wealthy men of Shopton and their wives came. Later it was found that the bills for these had never been paid. In short, Peters was a "bluff" in more ways than one.

Tom told enough of his story to the servants to get them on his side. Indeed, now that their employer had gone, and under such queer circumstances, they had no sympathy for him. They were only concerned about their own money, and Tom was given admittance to the house.

Tom made a casual search, hoping to find some clue to the whereabouts of Mr. Damon, or to get some papers that would save his fortune. But the search was unsuccessful.

There was a safe in the room Peters used for an office, but when Tom got there the strong box was open, and only some worthless documents remained.

"He smelled a rat, all right," said Tom, grimly. "After he telephoned to Mrs. Damon something happened that gave him an intimation that someone was after him. So he got away as soon as he could."

"But what are you going to do about it, Tom?"

"Get right after him. He can't have gotten very far. I want him and I want Boylan. We're getting close to the end of the trail, Ned."

"Yes, but we haven't found Mr. Damon yet, and his fortune seems to have vanished."

"Well, we'll do the best we can," said Tom, grimly. "Now I'm going to get a warrant for the arrest of Peters, and one for Boylan, and I'm going to get myself appointed a special officer with power to serve them. We've got our work cut out for us, Ned."

"Well, I'm with you to the end."

"I know you are!" cried Tom.

## CHAPTER XXIV. THE LONELY HOUSE

The young inventor had little difficulty in getting the warrants he sought. In the case of Boylan, who seemed to be Peters's right-hand man, when it came to criminal work, Tom made a charge of unlawfully taking the airship. This would be enough to hold the man on until other evidence could be obtained against him.

As for Peters, he was accused of taking certain valuable bonds and stocks belonging to Mr. Damon. Mrs. Damon gave the necessary evidence in this case, and the authorities were told that later, when Peters should have been arrested, other evidence so skillfully gotten by Tom's photo telephone, would be brought before the court.

"It's a new way of convicting a man—by a photo telephone—but I guess it's a good one," said the judge who signed the warrants.

"Well, now that we've got what we want, the next thing to do is to get the men—Peters, and the others," said Tom, as he and Ned sat in Tom's library after several hours of strenuous work.

"How are you going to start?" the young banker wanted to know. "It seems a strange thing that a man like Mr. Damon could be made away with, and kept in hiding so long without something being heard of him. I'm afraid, Tom, that something must have happened to him."

"I think so too, Ned. Nothing serious, though," Tom added, quickly, as he saw the look of alarm on his chum's face. "I think Mr. Damon at first went away of his own accord."

"Of his own accord?"

"Yes. I think Peters induced him to go with him, on the pretense that he could recover his fortune. After getting Mr. Damon in their power they kept him, probably to get the rest of his fortune away from him."

"But you stopped that, Tom," said Ned, proud of his chum's abilities.

"Well, I hope so," admitted the young inventor. "But I've still got plenty to do."

"Have you a starting point?"

"For one thing," Tom answered, "I'm going to have Mrs. Damon mail a fake package to the address Peters gave. If he, or any of his men, call for it, we'll have a detective on the watch, and arrest them."

"Good!"

"Of course it may not work," spoke Tom; "but it's something to try, and we can't miss any chances."

Accordingly, the next day, a package containing only blank paper, made up to represent the documents demanded by Peters as the price of releasing Mr. Damon, was mailed to the address Mrs. Damon had received over the wire from the rascally promoter. Then a private detective was engaged to be on the watch, to take into custody whoever called for the bundle. Tom, though, had not much hope of anything coming of this, as it was evident that Peters had taken the alarm, and left.

"And now," said Tom, when he had safely put away the wax record, containing the incriminating talk of Peters, and had printed several photographs, so wonderfully taken over the wire, "now to get on the trail again."

It was not an easy one to follow. Tom began at the deserted home of the alleged financier. The establishment was broken up, for many tradesmen came with bills that had not been paid, and some of them levied on what little personal property there was to satisfy their claims. The servants left, sorrowful enough over their missing wages. The place was closed up under the sheriff's orders.

But of Peters and his men not a trace could be found. Tom and Ned traveled all over the surrounding country, looking for clues, but in vain. They made several trips in the airship, but finally decided that an automobile was more practical for their work, and kept to that.

They did find some traces of Peters. As Tom had said, the man was too prominent not to be noticed. He might have disguised himself, though it seemed that the promoter was a proud man, and liked to be seen in flashy clothes, a silk hat, and with a buttonhole bouquet.

This made it easy to get the first trace of him. He had been seen to take a train at the Shopton station, though he had not bought a ticket. The promoter had paid his fare to Branchford, a junction point, but there all trace of him was lost. It was not even certain that he went there.

"He may have done that to throw us off," said Tom. "Just because he paid his way to Branchford, doesn't say he went there. He may have gotten off at the next station beyond Shopton."

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"Do you think he's still lingering around here?" asked Ned.

"I shouldn't be surprised," was Tom's answer. "He knows that there is still some of the Damon property left, and he is probably hungry for that. We'll get him yet, Ned."

But at the end of several days Tom's hopes did not seem in a fair way to be realized. He and Ned followed one useless clue after another. All the trails seemed blind ones. But Tom never gave up.

He was devoting all his time now to the finding of his friend Mr. Damon, and to the recovery of his fortune. In fact the latter was not so important to Tom as was the former. For Mrs. Damon was on the verge of a nervous collapse on account of the absence of her husband.

"If I could only have some word from him, Tom!" she cried, helplessly.

To Tom the matter was very puzzling. It seemed utterly impossible that Mr. Damon could be kept so close a prisoner that he could not manage to get some word to his friends. It was not as if he was a child. He was a man of more than ordinary abilities. Surely he might find a way to outwit his enemies.

But the days passed, and no word came. A number of detectives had been employed, but they were no more successful than Tom. The latter had given up his inventive work, for the time being, to devote all his time to the solution of the mystery.

Tom and Ned had been away from Shopton for three days, following the most promising clue they had yet received. But it had failed at the end, and one afternoon they found themselves in a small town, about a hundred miles from Shopton. They had been motoring.

"I think I'll call up the house," said Tom. "Dad may have received some news, or Mrs. Damon may have sent him some word. I'll get my father on the wire."

Connection to Tom's house was soon made, and Ned, who was listening to his chum's remarks, was startled to hear him cry out:

"What's that you say? My airship taken again? When did it happen? Yes, I'm listening. Go on, Father!"

Then followed a silence while Tom listened, breaking in now and then with an excited remark, Suddenly he called:

"Good-by, Dad! I'm coming right home!"

Tom hung up the receiver with a bang, and turned to his chum.

"What do you think!" he cried. "The Eagle was taken again last night! The same way as before. Nobody got a glimpse of the thieves, though. Dad has been trying to get in communication with me ever since. I'm glad I called up. Now we'll get right back to Shopton, and see what we can do. This is the limit! Peters and his crowd will be kidnapping us, next."

"That's right," agreed Ned.

He and Tom were soon off again, speeding in the auto toward Shopton. But the roads were bad, after a heavy rain, and they did not make fast time.

The coming of dusk found them with more than thirty miles to go. They were in an almost deserted section of the country when suddenly, as they were running slowly up a hill, there was a sudden crack, the auto gave a lurch to one side of the roadway and then settled heavily. Tom clapped on both brakes quickly, and gave a cry of dismay.

"Broken front axle!" he said. "We're dished, Ned!"

They got out, being no more harmed than by the jolting. The car was out of commission. The two chums looked around Except for a lonely house, that bore every mark of being deserted, not a dwelling was in sight where they might ask for aid or shelter.

And, as they looked, from that lonely house came a strange cry—a cry as though for help!

## CHAPTER XXV. THE AIRSHIP CAPTURE

"Did you hear that?" cried Ned.

"I certainly did," answered Tom. "What was it."

"Sounded to me like a cry of some sort."

"It was. An animal, I'd say."

The two chums moved away from the broken auto, and looked at each other. Then, by a common impulse, they started toward the lonely house, which was set back some distance from the road.

"Let's see who it was," suggested Tom, "After all, though it looks deserted, there may be someone in the house, and we've got to have some kind of help. I don't want to leave my car on the road all night, though it will have to be repaired before I can use it again."

"It sure is a bad break," agreed Ned.

As they walked toward the deserted House they heard the strange cry again. It was louder this time, and following it the boys heard a sound as if a blow had been struck.

"Someone is being attacked!" cried Tom. "Maybe some poor tramp has taken shelter in there and a dog is after them. Come on, Ned, we've got to help!"

They started on a run for the lonely house, but while still some distance away a curious thing happened.

There was a sudden cry—an appeal for help it seemed—but this time in the open. And, as Tom and Ned looked, they saw several men running from the rear of the old house. Between them they carried an inert form,

"Something's wrong!" exclaimed Tom, "There's crooked work going on here, Ned."

"You're right! It's up to us to stop it! Come on!"

But before the boys had taken half a dozen more steps they heard that which caused them great surprise. For from a shed behind the house came the unmistakable throb and roar of a motor.

"They're going off in an auto!" cried Ned.

"And they're carrying someone with them!" exclaimed Tom.

By this time they had gotten to a point where they could see the shed, and what was their astonishment to see being rolled from it a big biplane. At the sight of it Tom cried:

"It's the Eagle! That's my airship, Ned!"

"You're right! How did it get here?"

"That's for us to find out. I shouldn't wonder, Ned, but what we're at last on the trail of Peters and his crowd!"

The men—there were four or five of them, Ned guessed—now broke into a run, still carrying among them the inert form of another. The cries for help had ceased, and it seemed as if the unfortunate one was unconscious.

A moment later, and before the boys could do anything, had they the power, the men fairly jumped aboard Tom Swift's biggest airship. The unconscious one was carried with them.

Then the motor was speeded up. The roar and throbbing were almost deafening.

"Stop that! Hold on! That's my machine!" yelled Tom.

He might as well have spoken to the wind. With a rush and a roar the big Eagle shot away and upward, carrying the men and their mysterious, unconscious companion. It was getting too dark for Tom and Ned to make out the forms or features of the strangers.

"We're too late!" said Ned, hopelessly.

"Yes, they got away," agreed Tom. "Oh, if only I had my speedy little monoplane!"

"But who can they be? How did your airship get here? And who is that man they carried out of the house?" cried Ned.

"I don't know the last—maybe one of their crowd who was injured in a fight."

"What crowd?"

"The Peters gang, of course. Can't you see it, Ned?"

Unable to do anything, the two youths watched the flight of the Eagle. She did not move at her usual speed, for she was carrying too heavy a load.

Presently from the air overhead, and slightly behind them, the boys heard the sound of another motor. They

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turned quickly.

"Look!" cried Ned. "Another airship, by all that's wonderful!"

"If we could only stop them!" exclaimed Tom. "That's a big machine, and they could take us aboard. Then we could chase the Eagle. We could catch her, too, for she's overloaded!"

Frantically he and Tom waved their caps at the man who was now almost overhead in his airship. The boys did not call. They well knew, with the noise of the motor, the occupant of the airship could not hear them. But they waved and pointed to the slowly-moving Eagle.

To their surprise and delight the man above them shut off his engine, and seemed about to come down. Then Tom cried, knowing he could be heard:

"Help us capture that airship? It's mine and they've stolen it!"

"All right! Be with you in a minute!" came back the answer from above.

The second biplane came down to earth, and as it ceased running along on its bicycle wheels, the occupant jumped out.

"Hello, Tom Swift!" he called, as he took off his goggles.

"Why—why it's Mr. Halling!" cried the young inventor, in delight, recognizing the birdman who had brought him the first news of Mr. Damon's trouble, the day the airship became entangled in the aerials of the wireless on Tom's house.

"What are you doing here, Tom?" asked Mr. Halling. "What has happened?"

"We're looking for Mr. Damon. That's a bad crowd there," and he pointed toward the other aircraft. "They have my Eagle. Can you help me catch them?"

"I certainly can—and will! Get aboard! I can carry four."

"Then you have a new machine?"

"Yes, and a dandy! All the latest improvements—self-starter and all! I'm glad of a chance to show it to you."

"And I'm glad, too!" cried Tom. "It was providential that you happened along. What were you doing here?"

"Just out on a trial spin. But come on, if we're going to catch those fellows!"

Quickly Tom, Ned, and Mr. Halling climbed into the seats of the new airship. It was started from a switch, and in a few seconds it was on the wing, chasing after the Eagle.

Then began a strange race, a race in the air after the unknown strangers who had Tom's machine. Had the Eagle not been so heavily laden it might have escaped, for Tom's craft was a speedy one. But this time it had to give the palm to Mr. Grant Halling's. Faster and faster in pursuit flew the Star, as the new craft was called. Faster and faster, until at last, coming directly over the Eagle, Mr. Halling sent his craft down in such a manner as to "blanket" the other. In an instant she began to sink, and with cries of alarm the men shut off the motor and started to volplane to the earth.

But they made an unskillful landing. The Eagle tilted to one side, and came down with a crash. There were cries of pain, then silence, and a few seconds later two men ran away from the disabled airship. But there were three senseless forms on the ground beside the craft when Tom, Ned and Mr. Halling ran up. In the fading light Tom saw a face he knew—three faces in fact.

"Mr. Damon!" he cried. "We've found him, Ned!"

"But—too late—maybe!" answered Ned, in a low voice, as he, too, recognized the man who had been missing so long.

Mr. Halling was bending over the unconscious form of his friend.

"He's alive!" he cried, joyfully. "And not much hurt, either. But he has been ill, and looks half starved. Who are these men?"

Tom gave a hasty look.

"Shallock Peters and Harrison Boylan!" he cried. "Ned, at last we've caught the scoundrels!"

It was true. Chance had played into the hands of Tom Swift. While Mr. Halling was looking after Mr. Damon, reviving him, the young inventor and Ned quickly bound the hands and feet of the two plotters with pieces of wire from the broken airship.

Presently Mr. Damon opened his eyes.

"Where am I? What happened? Oh, bless my watch chain—it's Tom Swift! Bless my cigar case, I—"

"He's all right!" cried Tom, joyfully. "When Mr. Damon blesses something beside his tombstone he's all

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right."

Peters and Boylan soon revived, both being merely stunned, as was Mr. Damon. They looked about in wonder, and then, feeling that they were prisoners, resigned themselves to their fate. Both men were shabbily dressed, and Tom would hardly have known the once spick and span Mr. Peters. He had no rose in his buttonhole now.

"Well, you have me, I see," he said, coolly. "I was afraid we were playing for too high a stake."

"Yes, we've got you," replied Tom,

"But you can't prove much against me," went on Peters. "I'll deny everything."

"We'll see about that," added the young inventor, grimly, and thought of the picture in the plate and the record on the wax cylinder.

"We've got to get Mr. Damon to some place where he can be looked after," broke in Mr. Halling. "Then we'll hear the story."

A passing farmer was prevailed on to take the party in his big wagon to the nearest town, Mr. Halling going on ahead in his airship. Tom's craft could not be moved, being badly damaged.

Once in town Peters and Boylan were put in jail, on the charges for which Tom carried warrants. Mr. Damon was taken to a hotel and a doctor summoned. It was as Mr. Halling had guessed. His friend had been ill, and so weak that he could not get out of bed. It was this that enabled the plotters to so easily keep him a prisoner.

By degrees Mr. Damon told his story. He had rashly allowed Peters to get control of most of his fortune, and, in a vain hope of getting back some of his losses, had, one night—the night he disappeared, in fact—agreed to meet Peters and some of his men to talk matters over. Of this Mr. Damon said nothing to his wife.

He went out that night to meet Peters in the garden, but the plotters had changed their plans. They boldly kidnapped their victim, chloroformed him and took him away in Tom's airship, which Boylan and some of his tools daringly stole a short time previously. Later they returned it, as they had no use for it at the lonely house.

Mr. Damon was taken to the house, and there kept a prisoner. The men hoped to prevail on the fears of his wife to make her give up the valuable property. But we have seen how Tom foiled Peters.

The experience of Mr. Damon, coupled with rough treatment he received, and lack of good food, soon made him ill. He was so weak that he could not help himself, and with that he was kept under guard. So he had no chance to escape or send his wife or friends any word.

"But I'm all right now, Tom, thanks to you!" said he. "Bless my pocketbook, I don't care if my fortune is lost, as long as I'm alive and can get back to my wife."

"But I don't believe your fortune will be lost," said Tom. "I think I have the picture and other evidence that will save it," and he told of his photo telephone, and of what it had accomplished.

"Bless my eyelashes!" cried Mr. Damon. "What a young man you are, Tom Swift!"

Tom smiled gladly. He knew now that his old friend was himself once more.

There is little left to tell. Chance had aided Tom in a most wonderful way—chance and the presence of Mr. Halling with his airship at just the right moment.

Tom made a diligent effort to find out who it was that had chloroformed him in the telephone booth that time, but learned nothing definite. Peters and Boylan were both examined as to this on their trials, but denied it, and the young inventor was forced to conclude that it must have been some of the unscrupulous men who had taken his father's patent some time before.

"They may have heard of your prosperity, and thought it a good chance to rob you," suggested Ned.

"Maybe," agreed Tom. "Well, we'll let it go at that. Only I hope they don't come again."

Mr. Damon was soon home with his wife again, and Peters and Boylan were held in heavy bail. They had secreted most of Mr. Damon's wealth, falsely telling him it was lost, and they were forced to give back his fortune. The evidence against them was clear and conclusive. When Tom went into court with his phonograph record of the talk of Peters, even though the man's voice was hoarse from a cold when he talked, and when his picture was shown, in the telephone booth, the jury at once convicted him.

Boylan, when he learned of the missing button in Tom's possession, confessed that he and some of his men who were birdmen had taken Tom's airship. They wanted a means of getting Mr. Damon to the lonely house without being traced, and they accomplished it.

As Tom had surmised, Peters had become suspicious after his last talk with Mrs. Damon, and had fled. He

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disguised himself and went into hiding with the others at the lonely house. Then he learned that the authorities of another city, where he had swindled many, were on his trail, and he decided to decamp with his gang, taking Mr. Damon with them. For this purpose Tom's airship was taken the second time, and a wholesale escape, with Mr. Damon a prisoner, was planned.

But fate was against the plotters. Two of them did manage to get away, but they were not really wanted. The big fish were Peters and Boylan, and they were securely caught in the net of the law. Peters was greatly surprised when he learned of Tom's trap, and of the photo telephone. He had no idea he had been incriminating himself when he talked over the wire.

"Well, it's all over," remarked Ned to Tom, one day, when the disabled auto and the airship had been brought home and repaired. "The plotters are in prison for long terms, and Mr. Damon is found, together with his fortune. The photo telephone did it, Tom."

"Not all of it—but a good bit," admitted the young inventor, with a smile.

"What are you going to do next, Tom?"

"I hardly know. I think—"

Before Tom could finish, a voice was heard in the hall outside the library.

"Bless my overshoes! Where's Tom? I want to thank him again for what he did for me," and Mr. Damon, now fully recovered, came in. "Bless my suspender button, but it's good to be alive, Tom!" he cried.

"It certainly is," agreed Tom. "And the next time you go for a conference with such men as Peters, look out for airships."

"I will, Tom, I will!" exclaimed Mr. Damon. "Bless my watch chain, I will!"

And now, for a time, we will say good-bye to Tom Swift, leaving him to perfect his other inventions.