THE WRECKERS

By FRANCIS LYNDE

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LOST—ON' PERFECTLY GOOD ENGINE.

Synopsis.—Graham Norcross, railroad manager, and his secretary, Jimmie Dodds, are marooned at Sand Creek siding with a young lady, Sheila Macrae, and her small cousin, Maisie Ann. Unseen, they witness a peculiar train hold-up, in which a special car is carried off. Norcross recognizes the car as that of John Chadwick, financial magnate, whom he was to meet at Portal City. He and Dodds rescue Chadwick. The latter offers Norcross the management of the Pioneer Short Line, which is in the hands of eastern speculators, headed by Breckenridge Dunton, president of the line. Norcross, learning that Sheila Macrae is stopping at Portal City, accepts. Dodds overhears conversation between Rufus Hatch and Gustave Henckel, Portal City financiers, in which they admit complicity in Chadwick's kidnaping, their object being to keep Chadwick from attending a meeting of directors to reorganize the Pioneer Short Line, which would jeopardize their interests. To curb the monopoly controlled by Hatch and Henckel, the Red Tower corporation, Norcross forms the Citizens' Storage and Warehouse company. He begins to manifest a deep interest in Sheila Macrae. Dodds learns that Sheila is married, but living apart from her husband. Norcross does not know this. The Boss disappears; report has it that he has resigned and gone east.

CHAPTER VI—Continued.

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Mr. Van Britt saw and talked with everybody, and when he could wedge off a minute or two of privacy, he'd go into the third room of the suite and thresh it out with Juneman, or Billoughby, or Mr. Ripley. From these private talks I found out that there was still some doubt in the minds of all four of them about the boss' drop-out—as to whether it was voluntary or not.

Also, I found out what had been done during the four days. We had no "company detective" at that time, and Mr. Hornack had borrowed a man named Grimmer from his old company, the Overland Central, wiring for him and getting him on the ground within twenty-four hours of the time of Mr. Norcross' disappearance.

Grimmer had gone to work at once, but everything he had turned up, so far, favored the voluntary runaway theory. Mr. Norcross' trunks were still in his rooms at the Bullard; but his two grips were gone. And the night clerk at the hotel, when he was pushed to it, remembered that the boss had paid his bill up to date that night, before going up to his rooms.

Past that, the trace was completely lost. The conductor on the Fast Mail, eastbound, on the night in question, swore by all that was good and great that Mr. Norcross hadn't been a passenger on his train. And he would certainly have known it if he had been carrying his general manager.

Over in the other field there was absolutely nothing to incriminate the Hatch people. So far from it, Hatch had turned up at the railroad office, bright and early the morning after Mr. Norcross had gone. He had asked for the boss, and failing to find him, he had hunted up Mr. Van Britt. What he wanted, it seemed, was a chance to reopen the proposition that had been made to him the day before—the offer of the new Citizens' Storage & Warehouse company to purchase the various Red Tower equipments and plants.

Mr. Van Britt had referred him to Mr. Ripley, and to our lawyer Hatch had made what purported to be an open confession, admitting that he had gone to Mr. Norcross the night before, determined to fight the new company to a finish, and that there had been a good many things said that would better be forgotten. Now, however, he was willing to talk straight business and a compromise. He had called his board of directors together, and they had voted to sell their track-bordering plants to Citizens' Storage & Warehouse if a price could be amicably agreed upon.

With Mr. Norcross gone and a new general manager coming, Mr. Ripley was afraid to make a move, and Hatch was pressing him to get busy on the bargain and sale proposition; was apparently as anxious now to sell and withdraw as he had at first been to fight everything in sight.

By the morning I came on the scene the man Grimmer had, as they say, just about done his do. He was only a sort of journeyman detective, and had run out of clues. When he came in and talked to Mr. Van Britt and Mr. Ripley, I could see that he fully believed in the drop-out theory, and even the lawyer and Mr. Van Britt had to admit that the facts were with him. The boss had written a letter saying definitely that he was quitting; he had paid his hotel bill, and his grips were gone; and two days later President Dunton had appointed a new general manager, which was proof positive, you'd say, that the boss had resigned and had so notified the New York office.

When the noon hour came along, Fred May took me out to luncheon, and we went to the Bullard cafe. It was pretty rich for our blood at two dollars per, but I guess Fred thought his job was gone, anyway, and felt reckless. Over the good things at our corner table we did a little threshing on our own account—and got a lot more chaff and no grain.

Fred didn't want to agree with Grimmer and the facts, but there didn't seem to be any help for it. And as for me, I had other things in mind all the time—the big scary fear that somebody had got to the boss after he had left Ripley on the night of shockings, and had just bashed him in the face with the story of Mrs. Sheila's sham widowhood.

By and by we got around to my burned hand, and Fred told me Grimmer had at least succeeded in clearing up whatever mystery there was about that. The wall switch for the electric light in the lower hall at the headquarters was right beside the outer door jamb—as I knew. It had burned out in some way, and that was why there was no light on when I went down-stairs. And in burning out it had short-circuited itself with the brass lock of the door; Fred didn't know just how, but Grimmer had explained it. I asked him if Grimmer had explained how a 110 volt light current could cook me like a fried potato, and he said he hadn't.

The afternoon at the office was a sort of cut-and-come-again repeat of the morning, with lots of people milling around and things going crooked and cross-ways, as they were bound to with the boss gone and a new boss coming. Nobody had any heart for anything, and along late in the afternoon when word came of a freight wreck at Cross Creek Gulch, Mr. Van Britt threw up both hands and yipped and swore like a pirate. It just showed what a raw edge the headquarters' nerves were taking on.

Though it wasn't his business, Mr. Van Britt went out with the wrecking train, and Fred May and I had it all to ourselves for the remaining hour or so up to closing time. Just before five, Mr. Cantrell, the editor of the Mountaineer, dropped in. He looked a bit disappointed when he found only us two. Fred turned him over to me, and he came on in to the private office when I asked him to, and smoked one of the boss' good cigars out of a box that I found in the big desk.

I liked Cantrell. He was just the sort of man you expect an editor to be; tall and thin and kind of mild-eyed, with an absent way with him that made you feel as if he were thinking along about a mile ahead of you when you were striking the best think-gait you ever knew of.

"No word yet from Mr. Norcross, I suppose?" he said.

I told him there wasn't.

"It's very singular to me, and to all of us, as it is to you," I threw in.

The editor smoked on for a full minute without saying anything more, and he seemed to be staring absently at a steamship picture on the wall. When he got good and ready, he began again.

"You don't need any common plain-clothes man on this job, Jimmie; you need the best there is: a real, dyed-in-the-wool Sherlock Holmes, if there ever were such a miracle."

"You think it is a case for a detective?"

"I do," he replied, looking straight at me with his mild blue eyes. "If I were one of Mr. Norcross' close friends I should get the best help that could be found and not lose a single minute about it."

Since there was nobody around who was any closer to the boss than I was, I jumped into the hole pretty quick.

"Can you tell us anything that will help, Mr. Cantrell?" I asked.

"Not specifically; I wish I could. But I can say this: I know Mr. Rufus Hatch and his associates up one side and down the other. They are hand-in-glove with the political pirates who control this state. From the little that has leaked out, and the great deal that has been published in the Hatch-controlled newspapers all over the state during the past few weeks, it is apparent that Mr. Norcross' removal was a thing greatly to be desired, not only by the Red Tower people, but also by the political bosses. That ought to be enough to make all of you suspicious—very suspicious, Jimmie."

The tall editor got up and made ready to go. "If I were in your place, or rather in Mr. Van Britt's, I'd get an expert on this job—and I shouldn't let much grass grow under my feet while I was about it. Call me up at the Mountaineer office if I can help." And with that he went away.

It was just a little while after this that I put on my hat and strolled across the yard tracks to Kirgan's office in the shops. Kirgan was an old friend, as you might say; he had been on the Oregon building job with us and knew the boss through and through. I didn't have anything special to say, but I kind of wanted to talk to somebody who knew. So I loafed in on Kirgan.

He loved the boss like a brother. As soon as I came in, he fired his kid stenographer on some errand or other, and made me sit down and tell him all I knew. When I got through he was pulling at his long mustache and wrinkling his nose as I've seen a bull-dog do when he was getting ready to bite something.

"You haven't got all the drop-out business cornered over yonder in the general office, Jimmie," he said slowly, tilting back in his swing-chair and glowering at me with those sultry eyes of his. "On that same night that you're talkin' about, I stand to lose one perfectly good Atlantic-type locomotive. At ten o'clock she was set in on the spur below the coal chutes. At twelve o'clock, when the round-house watchman went down there to see if her fire was banked all right, she was gone."

CHAPTER VII

The Lost 1016

When Kirgan told me he was shy a whole locomotive, I began to see all sorts of fire-works. Of course, there was nothing on earth to connect the boss' disappearance with that of the engine which had been left standing below the coal chutes, but the two things snapped themselves together for me like the halves of an automatic coupling, and I couldn't wedge them apart.

"An engine—even a little old Atlantic-type—is a pretty big thing to lose, isn't it, Kirgan?" I asked.

Kirgan righted his chair with a crash.

"Jimmie, I've sifted this blamed outfit through an eighty-mesh screen!" he growled. "With all the devil-to-pay that's goin' on over at the headquarters, I didn't want to bother Mr. Van Britt, and I haven't been advertisin' in the newspapers. But it's a holy fact, Jimmie. The 'Sixteen's gone!"

I was trying to pry myself loose from the notion that the loss of the engine and the boss' disappearance at about the same time were in some way connected with each other. It was no use; the idea refused to let go.

"Look here, Kirgan," I shoved in; "can you think of any possible reason why Mr. Norcross should write Mr. Van Britt a letter saying that he had quit and was going east on the midnight train and then should change his mind and come down here and go somewhere on that engine?"

After I had said it, it sounded so foolish that I wanted to take it back. But Kirgan didn't seem to look at it that way.

"Well, I'll be shot!" he exclaimed. "I never once thought of that! But where the devil would he go? And how would he get there without somebody finding out? And why in Sam Hill would he do a thing like that, anyway? Why, sufferin' Moses! If he wanted to go anywhere, all he had to do was to order out his car and tell the dispatcher, and go.

"I can't figure it out any better than you can," I confessed. "Mr. Norcross is gone, and the Ten-Sixteen is gone, and they both dropped out between ten and twelve o'clock on the same night. Mart, I don't believe Mr. Norcross went east at all! I believe, when we find that engine, we'll find him!"

Kirgan got out of his chair and began to walk up and down in the little space between his desk and the drawing-board. Besides being the best boss mechanic in the West, he was a first-class fighting man, with a clear head and nerve to burn. When he had got as far as he could go alone he turned on me.

"Jimmie, do you reckon this Red Tower outfit was far enough along in its scrap with the boss to put up a job to pass him out of the game?" he demanded.

I told him it didn't seem to fit into any twentieth-century scheme of things, and past that I mentioned the fact that the Hatch people had taken the back track and were now offering to sell out and stop chocking the wheels of reform.

"I know," he put in. "But I've been readin' the papers, Jimmie, and it ain't all Red Tower, not by a jugful. The big graft in this neck-a woods is political, and the Red Tower gang is only set-a cogs in the bull-wheel. Mr. Norcross was gettin' himself mighty pointedly disliked; you know that. The way he was aimin' to run things, it was beginnin' to look as if maybe the people of this state might wake up some day and turn in and help him."

"I know all about that," I threw in. "But where are you trying to land, Mart?"

"Right here. Mr. Norcross was the whole show. Take him out of it and the whole shootin'-match would fall to pieces—as it's doin', right now. They didn't need to slug him or shoot him up or anything like that: if it could be made to look as if he'd jumped the job, quit, chucked it all up, why, there you are. A new boss

"I've Sifted This Blame Outfit Through an Eighty-Mesh Screen."

would be sent out here, and you could bet your sweet life he wouldn't be anybody like Mr. Norcross. Not so you could notice it. The New York people would take blamed good care-a that."

"You think the Dunton people are standing in with the graft?"

"Nobody could've grabbed off the motive-power job on this railroad, as I did, Jimmie, and not think it—and be d—n' sure of it. Why, Lord o' Heavens, the Red Tower bunch was usin' us just the same as if we belonged to 'em!—ordering our men to do their machinery repairs, helpin' themselves to any railroad material that they happened to need, usin' our cars and engines on their loggin' roads and mine branches."

"You stopped all this?"

"You bet I did—between two days! They've been makin' seventeen different kinds of a roar ever since, but I've had Mr. Van Britt and the big boss behind me, so I just shoved ahead."

What Kirgan said about the Red Tower people using our rolling stock on their private branch roads set a bee to buzzing in my brain. What if they had stolen the 1016 to use in that way?

"You have a blue-print of the Portal division here, haven't you?" I asked. "Dig it up and let's have a look at it."

At first the facts threatened to bluff us. The blue-print engineers' map was an old one, but it showed the spurs and side-tracks, the stations and water tanks. Since the lost engine had been standing at the western end of the Portal City yards, we didn't try to trace it eastward. To get out in that direction it would have had to pass the round-house, the shops, the passenger station and the headquarters building, and, even at that time of night, somebody would have been sure to see it.

Tracing the other way—westward—we had a clear track for ten miles to Arroyo. Arroyo had no night operator, so we agreed that the stolen engine might easily have slipped past there without being marked down. Eight miles beyond Arroyo we came to Banta, the first night station west of Portal City. Here, as we figured it, the wild engine must have been seen by the operator, if by no one else. Banta was an apple town, and the town itself might have been asleep, but the wire man at the station shouldn't have been.

"Let's hold Banta in suspense a bit, and allow that by some means or other the thieves managed to get by," I suggested. "The next thing to be considered is the fact that the Ten-Sixteen must now have been running—without orders, we must remember—against the Fast Mail coming east. The Mail didn't pass her anywhere—not officially, at least; if it had, the fact would show up in some station's report to the dispatcher's office."

At this, we hunted up an official time-card and began to figure on the "meet" proposition. The Fast Mail was due at Portal City at twelve-twenty, and on the night in question it had been on time. Making due time allowances for inaccuracy in the yard watchman's story, the missing engine could hardly have left the Portal City yard much before ten-forty-five.

The Fast Mail was scheduled at forty miles an hour. Its time at Banta was eleven-fifty-three. Allowing the 1016 the same rate of speed in the opposite direction, it would have passed Banta at eleven-twelve or thereabouts. Hence there would still be forty-one minutes running time to be divided between the eastbound train and the westbound engine. In other words, the meeting-point, with the two running at the same speed, would fall about twenty minutes west of Banta.

Tracing the line on the blue-print, we hunted for a possible passing point, which, according to the way we had things doped out, should have been not more than thirteen or fourteen miles west of Banta. There was a blind siding ten miles west, but beyond that, nothing east of Sand Creek, which was twenty-one miles farther along; at least, there was nothing that showed up on the map. The ten-mile siding might have served for the passing point, but in that case the crew of the Fast Mail would surely have seen the 1016 waiting on the siding as they came by. And they hadn't seen it; Kirgan said they had been questioned promptly the following morning.

Though I had been over the road with Mr. Norcross in his private car any number of times since we had taken hold, I didn't recall the detail topographies very clearly, and I couldn't seem to remember anything about this siding ten miles west of Banta. So I asked Kirgan.

"That siding isn't in any such shape that the Fast Mail could get by without seeing a 'meet' train on the side-track, is it?"

The big master-mechanic shook his head.

"Hardly, you'd think. I reckon we are up a stump, Jimmie. That siding is part of an old 'Y' at the mouth of a gulch that runs back into the mountains for maybe a dozen miles or so. They tell me the 'Y' was put in for the Timber Mountain Lumber outfit when they used the gulch mouth for their shipping point. They had one of their saw-mills up in the gulch somewhere, but the business died out when they got the timber all cut off."

"Tell me this, Mart," I put in quickly. "The Timber Mountain company is one of the Red Tower monopolies: did it have a railroad track up that gulch connecting with our 'Y'?"

"Why, yes; I reckon so. I'm not right sure that there ain't one there yet. But if there is, it's been disconnected from the 'Y.' I'm sure of that, because I went in on that 'Y' one day with the wrecker."

You'd think this would have settled it. But I hung on like a dog to a root.

"Say, Mart," I insisted, "this 'Y' siding we're talking about is just around where the Ten-Sixteen ought to have met the Mail; so far as we can tell by this map it's the only place where it could have met it. And the old gulch track would have been a mighty good hiding-place for the stolen engine!"

"There ain't any track there," said Kirgan, shaking his head; "or, leastwise, if there is, it hasn't any rail connection with our siding, just as I'm tellin' you. We'll have to look farther along."

Somehow, I couldn't get it out of my head but that I was right. Our guesses all went as straight as a string to that 'Y' siding ten miles west of Banta, and I was sure that if I had been talking to Mr. Van Britt I could have convinced him. But Kirgan was awfully hard-headed.

"It's supper time," he said, after we had mulled a while longer over the map. "Tomorrow, if you like, we'll take an engine and run down there. But we ain't goin' to find anything. I can tell you that, right now."

"Yes, and tomorrow we may have the new general manager, and then you and I and all the others will be hunting for some other railroad to work on," I retorted.

I pretty nearly had him over the edge, but I couldn't push him the rest of the way to save my life.

"If there was the least little scrap-a reason even to imagine that Mr. Norcross had gone off on that stolen

We Hunted for a Possible Passing Point.

eight-wheeler, it would be different, Jimmie," he protested. "But there aint; and you know doggoned well there ain't. Let's go up-town and hunt up something to eat. You'll feel a heap clearer in your mind when you get a good square meal inside o' your clothes."

We left the shop offices together, and got shut out, crossing the yard, by a freight that was pulling in from the west. There was a yard crew shifting on the other side of the incoming train, and rather than wait for the double obstruction to clear itself, we walked down the shop track, meaning to go around the lower end of things.

This detour took us past the round-house, and when we reached the turn-table lead, the engine of the just-arrived freight came backing down the skip-track. Seeing Kirgan, the engineer swung down from the step at the lead switch, leaving the hostler to "spot" the engine on the table. I knew the engineer by sight. His name was Gorcher, and he was a reformed cow-punch'—with a record for getting out of more tight places with a heavy train than any other man on the division.

"Here's looking' at you, Mr. Kirgan," he said, with a sort of Happy Hooligan grin on his smutty face. "You been passin' the word, quiet, among the boys to keep an eye out f'r that Atlantic-type that got lost in the shuffle, ain't you? Well, I found her."

"What's that—where?" snapped Kirgan, in a tone that made a noise like the pop of a whip-lash.

"You know that old gravel pit that digs into the hill a mile west of the old 'Y' on the Timber Mountain grade? Well, she's there; plumb at the far end o' that gravel track, cold and dead."

"Crippled?" Kirgan rapped out.

"Not as we could see; just dead. She's got her nose shoved a piece into the gravel bank, but she ain't off the rail."

Kirgan nodded. "Who else saw her?"

"Nobody but the boys on our train, I reckon."

"All right. Don't spread it. Want to make a little overtime?"

"I ain't kickin' none."

"That's business. After you've had your supper, call up your fireman and report to me here at the round-house. We'll take a light engine and go down along and get that runaway."

This seemed to settle Kirgan's half of the puzzle. We hadn't taken the gravel track into our calculations simply because it wasn't marked on the map we had been studying; but that merely meant that the pit had been opened some time after the map had been made.

When Gorcher had gone into the round-house to wash up and tell his fireman to report back, Kirgan and I crossed the yard and headed for town. I left the master-mechanic at the door of a Greek eat-shop that he patronized and went on up to the Bullard. I was just getting around to my piece of canned pumpkin pie when the kid from the dispatcher's office came into the grill-room, stretching his neck as if he were looking for somebody. When he got his eye on me he came across to my corner and handed me a telegram. It was from Mr. Chadwick, under a Chicago date line, and it was addressed "To the General Manager's Office," just like that. There were only nine words in it, but they were all strictly to the point: "What's gone wrong? Where is Mr. Norcross? Answer quick."

I saw in half a second at least a part of what had happened. Mr. Chadwick was back from his Canadian trip, and somebody—the New York people, perhaps—had wired him that a new general manager had been appointed for Pioneer Short Line. The old wheat king's quick shot at our office showed that he wasn't in the plot, and that, whatever else had become of him, Mr. Norcross hadn't as yet turned up in Chicago!

Gee! but that brought on more talk—a whaling lot of it. I meant to find out, right away, if Mr. Van Britt had come back from the scene of a wreck. He was the man to answer Mr. Chadwick's wire. But an interruption butted in suddenly, just as I was signing the dinner check. The head waiter, who knew me from having seen me so often with the boss, came over to say that I was wanted quick at the telephone.

It was Mrs. Sheila on the wire, and I could tell by the way her voice sounded that she was mightily excited.

"I've been calling you on every phone I could think of," was the way she began; and then: "Where is Mr. Van Britt?"

Enter Mr. Dismuke, "general manager."

(TO BE CONTINUED.)

CLARITY IN NIGHT THOUGHTS

Brain Is Frequently at Best During the Still, Quiet Hours of the Darkness.

Many writers sleep with pencil and notebook under their pillows and a lamp at hand, so that they may dash off the thoughts that come to them in the watches of the night. There is about these thoughts a clarity that does not come with daytime thinking—a sureness of vision that approaches the clairvoyant. Misfortunes never loom so full or realistic as after midnight; but joy and pleasure lose something of their glamor, their evidence; doubt creeps in with them.

A problem which we have wrestled in the daylight, weighing it with all our intelligence, is settled in a certain way, calmly and judiciously and after mature reflection. Our decision seems the right one. And then, suddenly, in the dead of the night, that self-same issue bobs up before our mental vision, wakes us from a sound sleep and settles itself in quite another way, in one great flash. A strong white light has been turned upon the brain and has revealed there a conclusion of which we had no inkling before. The processes of arriving at it are a closed chapter. The clairvoyant brain has registered a result only. And again and again it will be found to be the right, the expedient solution.

Memory, too, is peculiarly keen in the silences between midnight and four in the morning. All the cobwebs have been swept from the brain by the first hours of sleep; the body and nerve centers are singularly rested; there are no noises to disturb and some subconscious power is at work within us.

Strike in New Zealand.

It was in October, 1913, that New Zealand experienced a food and fuel shortage as a result of a general strike, which began with a walkout of shipwrights. New Zealand had been referred to frequently as "a land without strikes" by magazine writers, who found in its labor and social laws material for much praise. Its industrial laws often were held up as models. New Zealand is a British colonial possession, discovered by Tasman in 1642. The settlers have been often at war with the natives, the Maoris. The dominion does not have a socialist government, although it has adopted radically socialistic policies. The government is vested in a governor, appointed by the crown, and a general assembly consisting of a legislative council, appointed by the governor, and a house of representatives, elected.

Have to Be Handy With Ax.

Nearly all rural Tasmanian men are fairly dexterous with the ax. In the back blocks it is a necessity of life, one of the settler's first jobs being to construct a hut or house out of the growing timber surrounding the site. On farms fencing posts are sure to be required, and splitting them out of tree trunks still demands skill as well as energy, though the older post and rail fence, the all-wood rabbit-proof fence, and the "chopping block" log fence still in vogue in heavily timbered districts required much more nice ax work than the post and wire fence now generally erected.

Tottering for 600 Years.

The famous Leaning tower of Pisa is of pure white Carrara marble in the Gothic style. Its departure from the perpendicular has been variously interpreted, but there is little doubt that it rises from the softness of the soil on which it stands and which has given way. Notwithstanding its threatening appearance, it has now stood for more than six hundred years without rent or decay.

And He Did.

Blossom—Did you pay for this electric battery?" His Valet—"No, sir; you told me to have it charged!"

He who is unable to collect his wits or his bills is in tough luck.

POULTRY FLOCKS

TEST EGGS AT LEAST TWICE

Make Inspection on Seventh and Fourteenth Days for Those Infertile or With Dead Germs.

(Prepared by the United States Department of Agriculture.)

It is of little profit for a hen to sit patiently for 21 days if the eggs over which she fluffs her feathers are infertile or if the germs in them have died. Neither does it pay to run an incubator for three weeks, with its attendant care and expense, if the eggs in it are not fertile.

All poultry owners who raise chicks should be thoroughly familiar with the method of testing eggs. An egg, whether it is fertile or not, has a small grayish spot, known as the germinal spot, on the surface of the yolk. As soon as a fertile egg is placed under a hen or in an incubator the development of the germ begins. All eggs should be tested at least twice during the incubation period, say poultry specialists of the United States Department of Agriculture. This is done preferably on the seventh and fourteenth days. The infertile eggs, and

Testing Egg by Use of Metal Chimney Tester.

those with dead germs, should then be removed. White-shell eggs can be tested on the fourth or fifth day, whereas the development of eggs having brown shells often can not be seen by the use of the ordinary egg tester until the seventh day.

A satisfactory home-made egg tester or candler can be made with a shoe box or any other box large enough to hold the lamp. Cut a hole a little larger than a 25-cent piece in the side of the box, so that when the lamp is placed inside the box the hole in the side will be opposite the flame. Make a hole also in the top of the box large enough to prevent the top from catching fire from the heat of the lamp. When the chimney is long enough, allow it to extend through the top of the box. This permits the heat to escape and avoids the risk of fire. Special care should always be exercised in using kerosene lamps in candling to prevent fire. To prevent further possibility of fire.

Electric or gas lamps may be used in a box with a hole in the same way that the kerosene lamp is used. The hole which is in the side of the box should be on the same level as the light. The eggs may also be tested by sunlight or daylight, using a shade or curtain with a hole in it for the light to shine through.

Testing with a tester or candler should be done in a dark room. Hold each egg with the large end up, so that the size of the air cell may be seen, as well as the condition of the embryo or germ. An infertile egg when candled looks perfectly clear, the same as a fresh one; while a fertile egg shows a dark spot known as the embryo, with a mass of little blood veins radiating in all directions. When the germ is dead, and the egg has been incubated for at least 48 hours, the blood settles away from the embryo toward the edges of the yolk, forming in some cases an irregular circle of blood, known as a blood ring. Eggs vary in this respect, some showing only a streak of blood.

All infertile eggs, and those with dead germs, should be removed at the end of the first test. Eggs with dead germs soon decay and give off a bad odor if allowed to remain. The infertile eggs make good feed for young chickens.

At the second test, on the fourteenth day, the eggs containing strong, living embryos will be dark and well filled up, showing a clear, sharp, distinct line between the air cell and the growing embryo, while eggs with dead germs will show only partial development and lack this distinct outline.

The period of incubation for hen's eggs is 21 days, but usually some of the eggs hatch the evening of the twentieth day. Sometimes it happens, however, that the hatch will run over the twenty-first day, especially during cool weather.

SELECT EGGS FOR SETTING

Avoid Those That Are Abnormally Small and Poorly Shaped—Stick to One Color.

Eggs that are abnormally small and poorly shaped should not be uesd for incubation; neither should eggs that have thin or very porous shells, say specialists of the United States Department of Agriculture. If possible, eggs should be set when fresh, and it is never advisable to use for hatching eggs that are more than two weeks old. One of the quickest ways to obtain uniformity in the off spring is to select uniformly good-sized eggs of the same color.

Keep Geese for Feathers.

Many geese are kept in the South for the production of feathers rather than for their flesh, but the use of feathers is not so general as it has been, making that end of the business less profitable.

It pays to observe which hens are the best layers and breed from them.