Why We Can See Smoke.

Smoke is not composed of gases only, but of solid, or perhaps partly liquid particles, which are mixed with the gases and carried along by them. It is these particles of matter that are visible to the eye, and not the gases themselves.—St. Nicholas.

New Composing Job.

Binks (to Smith, the great composer)—"So you've given up writing oratorio and grand opera. What do you do now?" Smith—"I compose new tunes for motor horns."

Word for the Dog.

"Society women criticised for fondling dogs," said a newspaper headline, and the New York World comments: "It is not just to criticise a woman for enjoying the society of her dog until you have seen her husband."

INFERTILE EGGS KEEP BEST

Large Part of Loss Can Be Obviated, According to Investigation Just Completed.

A large part of the heavy loss from bad eggs can be obviated by the production of infertile eggs. This has been demonstrated beyond a doubt by the investigations concerning the improvement of the farm egg which during the past two years have been conducted in the middle west by the bureau of animal industry of the department of agriculture.

Secretary Wilson of the department of agriculture estimates that, between the producer and the consumer, there is an annual loss of $45,000,000 in the egg crop of the United States, the greater portion of which falls on the farmer, who is by far the largest producer. Of this enormous loss, about one-third, or $15,000,000, is caused by heat which develops the embryo of the fertile egg, causing what is known to the trade as a "blood ring." As it is impossible to produce a "blood ring" in an infertile egg, such an egg will stand a higher degree of temperature without serious deterioration than will a fertile egg.

The secretary says that if farmers and others engaged in the production of eggs would market their male birds as soon as the hatching season is over, a large saving would be made, as practically every infertile egg would grade a first or second if clean and promptly marketed.

No more simple or efficient method for the improvement of the egg supply of the country could be adopted than the production of infertile eggs.

The Rothschilds.

What chiefly struck one at the funeral of the late Baron Gustave de Rothschild was the great multiplicity of relatives descended from his father, the first Baron James, the shrewdest and most funnily humorous member of the Paris branch of the Rothschilds, that he founded. Among these descendants were a son, grandsons, and great- and great-great-grandsons—Rothschilds, Lamberts, Leoninos, Ephrussis, Sterns, Sassoons, Gubbays. They represented not only the principle of blood relationship, but the finance of Paris, Brussels, Genoa, Milan, Odessa, Bombay and Calcutta. Among the numerous multi-millionaires descended from the first Baron James there was one who devoted himself to medical science, dramatic literature and the collection of autographs of great writers—Baron Henri, only son of the second Baron James.

Salt Roasted Pumpkin Seeds.

In some of the rural districts of Macedonia the peasantry consume large quantities of pumpkin seeds, salted and roasted brown. The taste of this "nut," like the taste of caviar, is an acquired vice and some persons never succeed in acquiring it.—New York Press.

In the Same Boat.

Belle and Ben had just announced their engagement. "When we are married," said Belle, "I shall expect you to shave every morning. It's one of the rules of the club I belong to that none of its members shall marry a man who won't shave every morning?" "Oh, that's all right," replied Ben; "but what about the mornings I don't get home in time? I belong to a club, too."—Lippincott's Magazine.

Then He Thought Again.

The young man was fighting out ways and means. "They say two can live as cheaply as one." "Do not deride yourself, Ferdinand," said the girl. "For one thing, I shall positively have to have a separate car."

Amazing.

The scientists tell us, as the result of study of a paleolithic skull, that primitive man was able to think before he was able to speak. How times have changed.—New York Tribune.

SERIAL STORY

The Chronicles of Addington Peace

By B. Fletcher Robinson

Co-Author with A. Conan Doyle of "The Hound of the Baskervilles," etc.

THE STORY OF AMAROFF THE POLE

(Continued.)

I was just about to announce myself, when one of the men knocked over a brass candlestick which stood on the desk, so that it rolled to the further side. With a grunt of annoyance, he stepped leisurely round and dropped on his knees to recover it. Once out of sight of his companions, however, he whipped out a square of wax from his pocket, and with extraordinary rapidity took an impression from a key that he had kept concealed in his hand. It was all over in five seconds, and from the shelter the desk gave to him, no one but myself could have been the wiser. He rose, replaced the candlestick, and continued his work.

Whether the fellow had played his companion a trick or not, I had no desire to be caught acting the spy. So, pulling the curtains aside, I walked into the room. They all turned quickly upon me, the black-bearded man staring hard as if attempting to recall my face. But Peace was the first to speak.

"Good afternoon, Mr. Phillips," he said, as if I were a visitor he had expected. "You are just in time to drive me back. Have you a cab waiting?"

"No." I hesitated.

"It's of no consequence. We can find another at the top of the street. And now, Mr. Nicolin," he continued, turning to the big man, who had never taken his eyes off me, "are you quite satisfied, or do you wish your men to make a further search?"

"No, Mr. Insbector," he answered, with a heavy foreign accent, "we are quite content. Noding more is necessary."

"Shall you be wanting to come again?"

"No—for us it is sufficient. It is for you to continue, Mr. Insbector. You tink you will catch these men who kill him, hein?"

"We shall try," said Peace, with a modest droop of the eyes.

"Ach—but where can there be certainty in our lives? Come now, my children, let us be going. Alexandre, you have the door-key of the studio; give him to the inspector here."

So it was the door-key, thought I, of which Mr. Alexandre obtained a memento behind the roller-top desk!

Peace gave a polite good-bye to his companions on the step, locked up the little green door, and then started down the street at my side.

"I had no business to come poking my nose into your affairs," I said. "Anything you say I shall thoroughly deserve."

"Don't apologize," he smiled. "I was pleased to see you."

"And why?"

"You can do better things than remain a wealthy dilettante, Mr. Phillips. You are too broad in the shoulders, too clear in the head, for living in the world that is dead. Such little incidents as these—they drag you out of the shell you are building about you. That is why I was pleased to see you. I have spoken plainly—are you offended?"

"Oh, no," I said, waving my stick to a passing hansom, though I did not refer again to the topic which I foresaw was likely to become personally offensive to me.

He sat back in his corner of the cab, filling his pipe with dextrous fingers, while I watched him out of the corner of my eye. When it was well alight, he began again on a new subject.

"London's a queer place," he said, "though perhaps you have not had the time to find it out. There are foreign colonies, with their own religions and clubs and politics, working their way through life just as if they were in Odessa or Hamburg or Milan. There are refugees—Heaven knows how many, for we do not—that have fled before all the despotisms that succeeded and all the revolutions that failed from Siam to the Argentine. Tolstoi fanatics, dishonest presidents, anarchists, royalists, Armenians, Turks, Carlists, and the dwellers in Mesopotamia—a finer collection than even America itself can show. On the Continent—well, we should be running them in, and they would be throwing bombs. But here no one troubles them so long as they pay rent and taxes, and keep their hands out of each other's pockets or from each other's throats. They understand us, too, and stop playing at assassins and conspirators. But once in a while habit is too strong for them, and something happens."

"As it happened to Amaroff?"

"Yes—as it happened to Amaroff."

"It was a political crime?"

"Yes."

"And the reasons?"

"They have the advantage of simplicity. Amaroff was a member of the Russian secret-service, detailed to mix with and observe the Nihilist refugees. The Czar enters Paris in two days, and when the Czar travels the political police of all the capitals are kept on the run. I suppose Amaroff showed an excess of zeal that made his absence from London desirable. Anyway, he was found dead, and the Russians reasonably conclude it is the Nihilists who killed him."

"Who were those men in the studio?"

"The big fellow was Nicolin, the head of the Russian service over here. I don't know a better man in his profession nor one with fewer scruples. The other two were assistants. They came down to the Yard this morning with a request that they might search the studio for certain private papers which Amaroff had and which belonged to them. So we fixed the appointment into which you have just walked."

"And they finished their search?"

"You heard them say so."

"Exactly; but why, then, did they want an impression of the studio key?"

He turned upon me with a sudden impatience in his eyes.

"What do you mean?" he asked.

I told him of my arrival, and what I had seen from my post behind the curtains of the doorway. He did not speak when I had finished, but sat, puffing at his short pipe, and staring out over the horse's ears. So we arrived at our door.

"If you have further news tonight will you call in before going to bed?" I asked him as we stood on the pavement.

"I cannot promise you that. I have some important inquiries to make in the East End this evening, and I do not know when I shall return."

I suppose I looked depressed at his answer; indeed the prospect of a lonely evening in my rooms with such a mystery in course of solution outside, seemed oddly distasteful to me.

"It is a rough district, as you know," he said, watching me; "but would you care to come along?"

"There is nothing I should like better," I answered simply.

"Well—it's against the regulations; but they allow me some license. Be ready at nine, and I will call for you. Wear old clothes, a cap and a scarf round your neck to hide your collar. Is that understood?"

"Yes," I said, and so it was settled between us.

We were punctual in our meeting, and trotted eastward over the roads we had covered on the previous day. When we stopped it was at a narrow rift in a wall of mean dwellings. We dismissed the cab and threaded our way down the alley, which opened out upon a miserable square. The houses that surrounded it had once been of some pretension. In a simpler age merchants had doubtless lived there, men who owned the tall ships that had lain in the river near by. But now the porticos had crumbled, the iron railings had bent and rusted, the plaster had fallen in speckled patches from the walls. In the center a few ancient trees still dragged on a disconsolate existence. It was a silent place where wheeled traffic never came. And when, through an upper window, a woman suddenly poured forth shrill abuse upon a drunken man clinging to the railings, each oath rang loudly in the furtive silence.

As we paused at the mouth of the alley, a tall man, with a drooping yellow moustache, brushed by us; and when we turned into a beer-house at the corner he followed us, standing a little apart in an angle of the bar.

There were half a dozen men and women—of the life wreckage of the great city—sitting on the benches; but before the inspector was served with the drinks he ordered, they had whispered one to another and melted away. As the last one slunk through the door, Peace beckoned to the tall man, who joined us.

"Well, Jackson," he said, "you can't hide your light under a bushel in Stepney, that's certain."

"I'm afraid not, sir," he grinned. "Leastways not in Maiden Square."

"Well, have you found the place? Oh, that is all right," for the man had glanced at me with a brief suspicion. "This is Mr. Phillips, who has been of much service to me in our little affair; let me introduce you to Serjeant Jackson, Mr. Phillips."

I shook hands with the serjeant, who said that he would take a glass of beer.

"And the place?" asked Peace, when we had seated ourselves on a corner bench out of earshot of the man behind the bar—a bottle-nosed ruffian, who watched us furtively as he rinsed the dirty glasses.

"That's the address, sir," said the serjeant, handing his superior a crumpled sheet of paper.

"A club, is it?" he said, glancing up in his quick, bird-like way. "And what sort of a club?"

"Foreign, sir. They call themselves social democrats, but our special branch men tell me that a full half of the crowd are anarchists, and such rats as that. I think it must be so, for Nicolin and his Russians have had the place under close observation for weeks. And you know what that means, sir."

"Yes, I know what that means."

"Amaroff was not a member, but used to drop in there from time to time. He was very thick with the man who runs the place, Greatman, as he calls himself. They tell me that Greatman sat as a model for some statue he was doing, back in July. It must have been a funny sort of statue, for Greatman's a weedy little Pole, and drinks like a fish."

For some time the inspector sat in silence, drawing circles on the floor with the point of the light cane he carried. The bartender dropped a glass, swore, and then, with a stare at us, retreated into a little cage he had at the back of his domain. Doubtless the presence of detectives was no incentive to trade in the bars of Malden Square.

"This Greatman—what more do you know of him?"

"We have had nothing against him before; but all the same, it's his private room that has the sanded floor."

The inspector's prophecy of the previous night came back to me with a sudden remembrance: "Amaroff was murdered in a room with a sanded floor, probably at no great distance from Leman street, seeing that they carried him there in a coster's barrow." I began to understand the morbid significance of the private room in this little foreign club.

We were drawing nearer to our game; the scent was growing stronger. Addington Peace leant a little forward, with a twist in his jaw that raised a ripple of muscles under the skin.

"Continue, if you please," he said.

"The room is at the rear of the club, and there is a back staircase to a yard behind, where costers store their barrows when not in use. It fits in with what you told us to inquire for, don't it, sir?"

"Yes."

The inspector's stick recommenced its interlacing circles on the floor; and we sat and watched, as if thereby he were disentangling his sordid story. So still were we all that the bartender poked his luminous nose from his cage in the hope that we had gone. He withdrew it with remarks on the police force which were distinctly audible, and opposed to the complimentary. Suddenly the inspector turned to me with a motion of half-apology, as if at the neglect of a guest.

"There are times, Mr. Phillips," he said, "when evidence runs in absurd contradictions. Observe the present case, in which you are so good as to interest yourself. We have it from the Russian police that Amaroff is their man, and that in their opinion—they being well qualified to judge—he was murdered by Nihilists. We now learn that he was apparently on intimate terms with Nihilists, and we have good reason to believe that he was strangled in one of their clubs. What do you gather from that?"

"They discovered his treachery, and took an excusable revenge," said I.

"A sound conclusion. And now let us suppose that Amaroff was not a police spy at all; being, in fact, a dangerous Nihilist. What then?"

"Why set yourself such a puzzle?"

"Not for amusement," he said, with his quiet smile. "And now I propose a little experiment. You must introduce us to this club, Jackson; the door-keeper will know you, and pass us in. Afterwards you will go to the back entrance in the yard you spoke of, and wait. It should be easy to conceal yourself."

"Yes, sir. Am I to stop Greatman if he comes out?"

"No. Stop nobody. We had better be going."

The square lay desolate and lonely in the bleak moonlight. We crossed it, and stopped at a house in the shadows of the farther side. At our knock a slide flew back, and, in the gush of light, a hairy face examined us curiously.

"Vat is et?" he said.

(CHRONICLES TO BE CONTINUED.)

ICES A UNIVERSAL DELICACY

People of the South of Italy Remarkable for Their Fondness for This Simple Refreshment.

If you wish to realize what devotion to ices means you should go to Palermo. All over the south of Italy ices are eaten to an extent of which we do not dream, but in Sicily and Palermo in particular the custom has attained amazing proportions. Ices are eaten by people of all ranks and ages from morning to night. Where a true Briton would demand a glass of beer the Palermian asks for an ice. Morning, noon and night the consumption of ice goes on. They are in wonderful variety and cheap.

The stranger in that beautiful country finds the cafes invaded between 4 and 5 o'clock by ice eaters. He sees officers and men of the army, merchants and work people, the rich and the poor of both sexes consuming ices with gusto. No one evades this pleasant duty. Lines of carriages draw up at the side of the pavement before the cafes, the occupants, the coachman and the footman all with their favorite delicacy. At first the stranger wonders, then he falls a victim.—London Chronicle.

Mary Broken Up.

Mary dropped her eyes on the floor as Henry burst into the room. Her face lengthened rapidly, and she finally pierced him with a glance. As his laugh rose and fell, she dropped her aw and her voice broke.—Judge.

FARM and GARDEN

MOLE WORKS DURING WINTER

Little Animal Keeps Busy Where Ground Is Not Frozen Too Hard—His Strength Is Marvelous.

(By T. H. SCHEFFER.)

The mole, like the pocket gopher, is more or less active at all seasons of the year, but it is during the rainy period, when the soil is moist, that his work is pushed most vigorously. Shallow runways are then rapidly extended in all directions and old runways repaired.

When a mole makes up its mind to go in a certain direction, nothing but concrete or stone will stop him.

Hand, Foot and Nose of Common Mole.

The strength of these little animals is marvelous. They will heave up the surface of a path trodden so hard that repeated blows of a pick will be needed to break the crust.

Ordinarily the mole makes his way through the soil as a root does, or a stake when driven by the blows of a sledge. The earth is not excavated, but simply crowded aside. When the ground becomes very hard, of course, the mole is obliged to excavate the passageways and push the loose dirt out through the openings of the roof of his tunnel.

The mole keeps at work all through the winter in places where the ground is not frozen too hard. He works more frequently in the morning and evening.

Moles do very little harm to the roots of grain, grasses or vegetables, except in pushing the soil aside, and they live principally on the white grub, earth-worms and beetles.

He thus proves himself to be a friend to mankind, because grubs are the greatest scourges of grass and other valuable plant roots.

VALUE OF THE DRILL SYSTEM

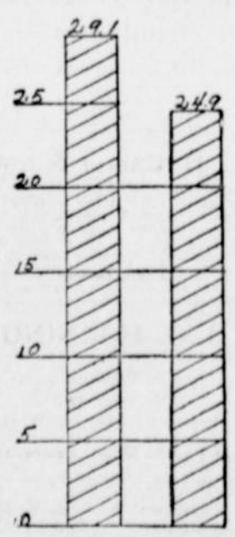
Question Most Frequent in Discussions on Wheat Raising Is Answered by Many Farmers.

(By L. C. BURNETT.)

The value of the drill is the question most frequent in discussions on wheat raising. The results of four years' tests in Iowa are found to be 4.2 bushels of winter wheat gain per acre when the grain was drilled, over that which was broadcasted. This, figured at 70 cents per bushel, the average price of wheat for the time covered by the experiment, shows a balance of $2.95 per acre in favor of drilling.

The opinion of farmers in all parts of the country seems to be about the same, when it comes to the value of the drill.

Edward Lefot of Minnesota says: "Five pecks per acre is the usual quantity sown when the wheat is drilled, and six pecks broadcast. Experiments seem to indicate that a larger quantity of seed does not increase the yield. I prefer drilling to



Drilled. Broadcast. Showing Loss of Bushels Occasioned by Broadcast Seeding.

broadcasting, mainly because it places the seed where each kernel will germinate at once and there is absolutely no waste of seed."

A Pennsylvania farmer says: "Drilling proves best here."

In Virginia, 30 bushels per acre has been and is being harvested each year from broadcasted seed.

In Kentucky drilling is said to have given far better results than broadcasting.

A Missouri farmer writes: "I prefer the drill, as it distributes the seed more uniformly."

From North Carolina a farmer writes: "If the seed is evenly distributed we think broadcasting best in the south, as it keeps down all other vegetation."