

## QUEER CAUSES OF FIRE.

Suspicious fires are of daily occurrence in all the great cities. Wherever there is a blaze, the origin of which is not apparent, incendiary is at once suggested. Yet investigation shows that less than 1 per cent of such fires are the result of a deliberate attempt to destroy property.

There are, however, in every city professional incendiaries—men, who for pay will fire by the most ingenious methods. Of course, the object of the arson is the collection of the insurance by the owner of the property. One of the favorite schemes of the incendiary calls for a chair, an oil stove and a long cord. The stove is placed upon the chair and the wick lighted. To the back of the chair is tied a strong cord. The cord is passed out through a window. The firebug pulls the cord at the desired moment, upsets the chair, and the burning oil from the stove starts the blaze. Another scheme requires only an electric light bulb and a box of cloth clippings. The current of electricity is turned on and the lighted bulb is packed in the clippings. Experiments have shown that it requires fourteen minutes to melt the glass bulb and set afire the materials surrounding it.

The firebug, however, accomplishes comparatively little compared to his friends, the jerry builder, the careless carpenter, the incompetent electrician, and the plumber and the painter, who are too free with their spirit lamps. In an investigation of 565 suspicious fires made in 1898 by Peter Seery, the fire marshal of New York, there were only two fires which were absolutely proved to have been incendiary origin. In several other cases persons were arrested on the charge of arson, but juries failed to convict them. The investigation of these fires resulted in the arrest of twelve persons, the majority of whom were discharged by magistrates for the lack of conclusive evidence. In most cases there seemed to be a moral certainty of the guilt of the accused persons. They were in New York city in 1898 4,239 fires from all causes.

Those whose duty it is to investigate fires of suspicious origin are confronted with many difficulties. Not the least of these is the manner in which citizens, for apparently no good reason, deliberately mislead the investigators. A deputy fire marshal once spent nearly a day in the investigation of a fire which he believed to have been the work of an incendiary. He would probably have still been in the dark with regard to it had he not overheard a conversation as he was leaving the tenement where the fire had occurred. A woman was singeing a chicken in the kitchen of one of the apartments. A blaze from the burning paper had ignited a towel which was drying over the stove and the fire spread rapidly throughout the room. Thinking that she would be censured for carelessness she had evaded the questions of the officials and put them to a great deal of trouble, besides bringing innocent persons under suspicion.

An investigator of fires of peculiar origin such as are constantly occurring in large cities, must have some knowledge of chemistry, physics, architecture and of a variety of other arts and sciences. It is not generally known, for instance that a combination of indigo and linseed oil is a prolific source of destructive fires. Fabrics dyed with indigo and finished with a preparation of linseed oil will, if stored in a confined space take fire of themselves. It was only a few years ago that a dry goods house was nearly destroyed because the proprietor did not know the destructive qualities of oil and of Indian dye. Lampblack when packed away in an ill-ventilated room often generates enough heat to set itself on fire. In one of the principal cities of the United States the laboratory of a perfumer was nearly wrecked by an explosion. The maker of scents believed that a discharged employee had set fire to the building, but it was shown that the fire was due to the slow evaporation of a high spirit in a room in which a small laboratory gas stove had been left burning.

There passed through the streets of Boston a few years ago a load of hay which suddenly became enveloped in flame. The driver of the hay wagon was about to assault a guileless youth who was smoking a cigarette, nearby. The trouble, however, had nothing to do with the cigarette smoker, but was caused by the tire of the wheel rubbing against an iron rod on the side of the wagon. A bystander had seen the spark caused by the contact between the pieces of metal fly into the hay. In all

manufacturing establishments a frequent cause of fires is the rubbing of leather belting against the edges of the aperture which it passes from floor to floor.

In a fancy goods house a large iron vault was blown open by some force generated within and there issued a sheet of flame. Nobody had been in the vault for at least twelve hours. The steel box was filled with paper dolls, between each pair of which there was a film of celluloid. A three inch steam pipe was placed against the rear of the vault and the heat it gave out had raised the temperature of the iron box to such a degree that the celluloid films had taken fire. Gun cotton is one of the common parts of celluloid and the explosion was the natural result of a combination of gun cotton and high temperature. One of the most stubborn fires which ever visited Chicago had its origin in a plate glass window. The pane concentrated the heat of the August sun upon a celluloid comb. The comb blazed and sputtered and soon the other samples of celluloid which were around it were on fire. The flames communicated to the remainder of a stock of inflammable merchandise.

The overweening fondness of mice and rats for sulphur has been the cause of many fires. A deputy fire marshal said that he had in several cases seen nests of matches which the rats and mice had made between the floors of buildings. It is no unusual thing when structures are being torn down to find that the rodents have lined their abodes with the brimstone anointed sticks. The mice and rats will steal an old fashioned sulphur match whenever they get an opportunity and take it away to chew at their leisure. The gnawing process results in the ignition of the matches and there follows a mysterious and suspicious fire. The rodents regard paraffine as a choice delicacy. If the insulation of an electric wire contains this waxy product of petroleum, the rats will eat it. The bare wire thus becomes a ready means of starting a blaze.

In many cases the steamfitter is responsible for destructive fires. If a steam pipe is too close to woodwork a slow process of carbonizing takes place. A little extra heat or a draught of air may fan a flame from the carbonized wood. Another cause of conflagrations is the carelessness of carpenters. From time immemorial it has been a habit of the trade to sweep shavings in between the joists of floors. In these days of electric wiring the supposedly insulated wires pass beneath the floors. If either the wire or the shavings were properly insulated there would be no trouble. But in one way or another the wire is exposed and communicates a spark to the shavings which may be lying near it. The spark may smoulder for days and then in the dead of night there comes a cry of "Fire!"

The houses of the wealthy, even in these days of fireproof construction, are often more of firetraps than the meanest tenements. The flues in the abodes of wealth and luxury are often defective. In many cases only the width of a brick intervenes between intense heat and highly varnished and inflammable cabinet work. Rich hangings and upholstered furniture give the food upon which a fire feeds. Defective electric wiring has many sins to answer for in these days. Electricians who are supposed to be competent will cross wires and violate nearly every principal of common sense and of electrical science. Some of them lead strands of wire through wooden boxes which in the event of fire, become roaring flues. Some of the most destructive fires known in the large cities have been due to carelessness in placing the wires for electric lighting.

One of the greatest dangers that firemen have to face is the sudden explosive burst of flame in the burning building where no known explosives are present. The theory has been advanced by experts in fire-fighting that these explosions are caused by a gas generated in a closed building by a high degree of heat. The exact nature of this gas they do not attempt to define, but they say that it is a high explosive and extremely inflammable in the open air. This theory was borne out in a remarkable way by a fire in Syracuse several years ago. On two sides of a large storehouse building there was fire. The burning buildings were both separated from the storehouse by the width of the street. Streams of water from hose were playing upon it in the hope of saving it. The building was filled with cloth and other non-explosive materials. Without preliminary flickering or other warning the entire building sud-

denly burst into flames. The windows were violently blown out, and fire darted forth from them and at the same time great columns of flame sputtered up from the roof. It was evident that the air inside the tightly closed building had become ignited on all sides. That it had an explosive quality was equally apparent. This same gas it is said, is responsible for the vivid and beautiful fire balloons that sail up into the air above large fires.

There is a mysterious property in dust which, under certain conditions, produces violent explosions. There have been instances in post offices where the dust from the mail bags suspended in the air of a close room has exploded with terrific force. Dust explosions are of frequent occurrence in flour and drug mills.

Spontaneous combustion covers a multitude of the sins of carelessness. The origin of many fires in tailor shops may be traced to the so-called dry-cleaning of clothes. A rag dipped in naphtha is frequently used in removing grease spots from garments. The rag soaked with inflammable fluid is thrown upon the floor. When the shop is closed up and the air is confined the naphtha-soaked material will of itself generate fire. Bales of cotton, placed in the hold of a ship, are often the cause of disastrous fires. Frequently a spark from a cigar finds a resting place in a cotton bale, where it smoulders for weeks.

One of the most prolific causes of tenement-house fires is the dark hall. The law provides that hallways shall be lighted until 10 o'clock at night. Frequently persons come in after that hour, and strike matches in order to find their way. In many cases their senses are befuddled with drink, and the burning match sticks are thrown upon the floor. Here the matches may come in contact with greasy matting or with bits of paper and start a fire which smoulders for hours, and in the early hours of the morning spreads through the house. Rainy days cause all manner of fires. It is the custom of the housewife to hang wet garments in the kitchen when the weather conditions will not admit of the drying of the family wash upon the roof. Frequently she leaves the damp clothes hanging in the kitchen near a stove. The garments dry out during the night and becoming lighter are easily blown against the stove by draughts of air. They take fire and before many minutes the whole kitchen is in flames.

Frequent recommendations have been made by the chiefs of city fire departments that the swinging gas bracket be abolished by law. Whenever the authorities of the fire department get a chance they order such brackets to be moved or made stationary. Hundreds of fires have been caused by the carelessness of persons who left these swinging brackets in such a position that the flame could come in contact with lace curtains. With a special reference apparently to causing as many fires as possible, the gasfitter always puts a swinging bracket where he knows the housekeeper will wish to hang a lace curtain. The combination of curtain and bracket is often fatal. One of the most active causes of fires is the mantel decoration. In many homes a silken scarf is hung from the mantel itself. Whenever there is fire in the grate there is danger of the flimsy scarf taking fire. In tenement houses small stoves are often placed before the mantel. The mantel shelves are none the less duly decorated with yards of embroidered and tinselled cloth; in many cases, this decoration has caught fire from the stove fallen to the floor, and ignited the fat-soaked carpet or matting. In some houses there are wardrobes and clothes closets near the chimneys. The clothing hung behind the closed doors and subjected in the winter time to a steady heat from the chimney is liable to combustion.

In places where chemicals are kept the varieties of fires are almost countless. Comparatively innocent substances in themselves may come in contact and penetrate heat sufficient to start a lively blaze. One of the Atlantic freighters came to this port recently with a cargo composed of crude chemicals and cotton. There had been an explosion of acids before the fire. It seemed impossible to check the flames, which had communicated to the cotton. The fire, however, generated heat sufficient to liberate the chlorine from a quantity of bleaching powder. The chlorine materially aided in keeping the fire in check, although its suffocating fumes nearly caused the death of the sailors who went into the hold to fight the flames. In the storage of all kinds of materials too much care cannot be exercised. The fact must be taken into consideration that where air does not circulate the chances of fire are greatly increased. The observance of the simple rules laid down by fire departments would frequently obviate the necessity of investigating the origin of mysterious fires.

### HIS BILL OF EXPENSES.

An Irish Hotel Keeper's Method of Making out the Document.

There was once a memorable election in County Meath. A candidate, Sir Mark Somerville, sent orders to the proprietor of an inn at Trim to board and lodge all persons who should vote for him. In due course the following bill—which I give as a curiosity worth noting—was presented. It was framed and hung in Somerville House, Meath:—

My Bill yer honor!  
To eatin' 16 freeholders abuv stairs for Sir Mark at 3s. 6d. a head—is to me..... £2 12 9  
To eatin' 16 more below stairs, and two priests after supper—is to me..... £2 15 9  
To six beds in wan room, and four in another, at two guineas every bed, and not more than four in any bed at a time—cheap enough, God knows—is to me..... £22 15 0  
To eatin' 13 horses and 5 mules about my lord all night at 13s. every one of them, and for a man which was lost, on head of watching them all night—is to me..... £5 5 0  
For breakfast or tay in the morning for every one of them, and as many more as they brought, as near as I can guess—is to me..... £ 4 12 0  
To raw whiskey and punch, with out talking of pipes and tobacco, as well as for porter, and as well as for breakfasting a lot above stairs, and for glasses and delf for the first day and night—I am not sure; but for three days and a half of the election, as little as I can call it, and not be very exact, it is in all or thereabouts, and not to be too particular—is to me..... £57 19 0  
For shaving and cropping off the heads of the 49 freeholders, for Sir Mark, at 13d. for every head of them, by my brother, who had a vote—is to me..... £2 13 1  
For medicine and nurse for poor Tom Kernan in the middle of the night, when he was not expected, is to me ten hogs. I don't talk of the piper, or for keeping him sober, as long as he was sober—is to me..... £40 10 0  
Now total the figures  
The total is £100 10s. 7d., you may say £111. So yer honor, Sir Mark, send me this £111 by Bryan himself, who, and I pray for your success always in Trim, and no more at present.

Signed in place of Jemmy Carr's wife,  
BRYAN X. GARRATY,  
His mark.

### In the Coming Age.

'Your honor,' said the woman lawyer deferentially, 'I challenge this juror, Alpheus Cook, for cause.'  
'Cook,' sternly spoke the woman judge, 'you are discharged.'  
And there were whole generations of delayed vengeance in the gleam of the court's eye as she said it.

### A Culinary Artist.

Muggins—I was at B Jones' chafing dish party last night. He's not much of a success as a cook.  
Buggins—Oh, I don't know! I've heard that when he gets home at 3 a. m. and his wife is waiting up for him he can cook up a story that would make your hair curl.

### A Matter of Form.

'The modern society girl's wardrobe,' said the old lady, 'is the most extravagant thing. Now, Miss Padden, for instance is an example.'  
'It is a sort of example,' replied her niece. 'It certainly has all sorts of figures in it.'

### In Doubt.

'He wore his evening clothes at breakfast!' exclaimed one woman.  
'Yes,' answered the other. 'I can't make up my mind whether he is from Chicago or whether he's one of the Newport fashionables trying to do something dashing and original.'

### Had It Badly.

A teacher defined conscience as "some thing within you that tells you you have done wrong."  
'I had had it once,' spoke up a young tow-head of six summers, but they had to send for the doctor.'

### Fatal Incompatibility.

'It is useless to urge me, Mr. Cahokia, said the Boston girl, firmly, yet with infinite sadness. I am not insensible to the many good qualities you possess, but I

feel I could never love a man who accents 'demoniacal' on the second and penultimate syllables.'

### Celestial Etiquette.

'The Chinese are said to be models of polite conduct.'  
'Yes; they would rather kill the missionaries than hurt their feelings by telling them to leave the country.'

**Catarrh and Colds Relieved in 10 to 60 Minutes.**—One short puff of the breath through the blower supplied with each bottle of Dr. Agnew's Catarrhal Powder diffuses this powder over the surface of the nasal passages. Painless and delightful to use. It relieves instantly, and permanently cures catarrh, hay fever, colds, headache, sore throat, tonsillitis and deafness. 50 cents.—41

Bank president—Have the books been examined?  
Vice president—Yes, sir.  
President—Has the examiner been examined?  
Vice president—Yer, sir.  
President—By whom?  
Vice president—By me.  
President—Have you been examined?  
Vice president—Yes, sir.  
President—Very well; now you may examine me and then we shall close for the day.

**The Governor's Wife a Prisoner.**—Mrs. Z. A. Van Luven is the wife of the governor of the county jail, Nananee, Ont., and was a great sufferer from rheumatism. When the best doctors in the community and "specialists" failed to help her, she buried her scepticism of proprietary remedies and purchased South American Rheumatic Cure. 4 bottles cured her.—42

He (tentatively)—What would you say, dear, if I should ask you to marry me?  
She (thoughtfully)—What would I say?  
He (hopefully)—Yes, dearest.  
She—I would say—I would say—  
He (eagerly)—Yes, dear. Go on. Go on.  
She—I would say that Charlie Brown had asked me three weeks ago, and I had accepted him.

**Speechless and Paralyzed.**—"I had valvular disease of the heart," writes Mrs. J. S. Goode, of Truro, N.S. "I suffered terribly and was often speechless and partially paralyzed. One dose of Dr. Agnew's Cure for the Heart gave me relief, and before I finished one bottle I was able to go about. To-day I am a well woman."—43

Mrs. Crimsonbeak—There's one thing about my husband I never could understand.

Mrs. Yeast—And what's that?  
'Why, when he comes home late he can't find the keyhole, but when he gets inside, from the noise he makes, he seems to find everything in the room.'

**Twitchy Muscles and Sleeplessness.**—The hopeless heart sickness that settles on a man or woman whose nerves are shattered by disease can best be pictured in contrast with a patient who has been in the "depths" and has been dragged from them by South American Nerve. George Webster, of Forest, Ont., says: "I owe my life to it. Everything else failed to cure."—44

'Do you see that very tall young man over there leaning against the wall? He's just from the country and awfully green. He has come up to the city to get his share of an uncle's millions.'

'Say, he must be the long green that the sporting papers have so much to say about.'

**Pill-osophy.**—There are pills and pills—but Dr. Agnew's Liver Pills at 10 cents a vial lead in demand. The sale borders on the phenomenal. Sluggish liver, constipation, or irregular bowels are the precursors of many physical disorders. These little wonders remove the cause. 40 in a vial for 10 cents.—45

'Why are you going to move?' asked the friend from a distance.

'Oh, this is such a disgustingly poor neighborhood that we simply have to,' was the reply. 'Why, we haven't found a soul with a telephone we can run in and use or a bicycle we can borrow.'

**Manly Strength and Womanly Beauty** depend on purity of the blood, and much of that purity depends on perfect kidney filtering. If these organs are diseased and will not perform their functions, man will seek in vain for strength and woman for beauty. South American Kidney Cure drives out all impurities through the body's "filters"—repairs weak spots.—46

Mr. Bike—You've got your automobile all right; but why don't you have an auto cap and suit?

Mr. Otto—Why?  
Mr. Bike—Well, you pay the expenses of an automobile for awhile and you'll know why.

**Itching, Burning, Skin Diseases Cured for Thirty-five Cents.**—Dr. Agnew's Ointment relieves in one day, and cures Tetter, Salt Rheum, Scald Head, Eczema, Barber's Itch, Ulcers, Blisters and all eruptions of the skin. It is soothing and quieting and acts like magic in the cure of all baby humors. 35c.—47

Foster—Curious affair about that New York man that is going to start out to discover the North Pole.

Felton—How so?  
'Why, he delayed starting until the relief expedition was already on the way.'

**Better without a Stomach** than with one that's got a constant "hurt" to it. Dr. Von Stan's Pineapple Tablets stimulate the digestive organs. Let one enjoy the good things of life and leave no bad effects—carry them with you in your vest pocket—60 in box, 35 cents.—48