CURIOUS CAUSES OF FIRES.

RATS AND ROACHES, WATER AND DUST, SPONGES, AND NAPHTHA VAPJR.

So far as the causes of fires go, there is nothing new under the sun. The rat that gnawed at a box of grease-dipped friction matches until they ignited and burned up a Western town, is an old, old story. So is the tale of the cockroach that crawled from an oil receptacle into a gas jet, where it took fire, and, falling, spread the flames. A nail glanced from a hammer wielded by a carpenter, fell into the conveyer of raw materials in a jute factory, rubbed against the drum, and produced a spark which set fire to the place. A running belt which set fire to the heap by friction.

There was a fire in the east side of the city, recently, caused, curiously enough, by water. The feed pipe at the back of a boiler burst, oausing water to escape into the fire. In this way sufficient steam was generated to blow open the furnace door, thus forcing the flames into the boiler room. The woodwork in the place was set on fire and a serious calamity was the result. A somewhat similar accident took place not long ago in a Western mill which fed its fires with shavings that were blown under the boiler. It seems that the shavings blower was stopped for a moment, oausing a back draught in the furnace which sent flames through the furnace doors and ignited the shavings in the boiler room.

Having long despaired of attributing specific causes to fires, underwriters fell back on the general term, "spontaneous combustion," which may mean almost anything. For example, in a manufactory of plane bits in Chicago a sponge was used to transfer the water by capillary attraction from a water box to an emery wheel, on which the bits were ground. The sponge wiped off the fine steel particles from the wheel and they were collected in the cells of the sponge, where they were kept constantly wet. After the sponge had been laid aside for a week or so, it was discovered that the mass had become spontaneously ignited, and but for its timely discovery another mysterious fire would have occurred. Another singular fire was caused by the ignition of coal piled up against the outer wall of a boiler house. The wall was built of brick, 32 inches thick, yet sufficient heat passed through from the boiler setting to set the coal on fire.

It has long been determined that any substance capable of burning will explode if turned into powder and mixed with air. This is one of the most interesting forms of spontaneous combustion. There was a dust explosion in a fur-cleaning establishment in this city a few years ago that furnishes an example of this sort. The dust consisted of a powdered mixture of wood and flour, and when it came in contact with the air there was an explosion that lifted the roof off the building. Explosions in flour mills, due to this cause, are of frequent occurrence.

Another interesting form of spontaneous combustion is that resulting from the mixture of a small quantity of naphtha vapor with a large quantity of sir. In a local machine shor, where repairs were being made to a locomotive boiler, the steam dome had been removed to allow a workman to get inside. A pint of benzine had been used on some of the interior bolts and screws, for the purpose of locsening them so that they might be removed. The men at work on the boiler went off to dinner, and on their return one of their number got inside to remove the bolts, while a man outside handed him a light. As soon as the light came in contact with the air from the boiler, slightly impregnated with naphtha vapor, there was a tremendous explosion. The man outside, who handed the light, was killed instantly, as was also a man standing on top of the boiler. The man inside was blown clear through the fourteen-inch opening of the steam dome and thirty feet into the air, being killed instantly.

A similar case was that of the petroleum steamer "Ville de Calais," which was blown to pieces at Calais in January, 1889, after the discharge of her cargo. The explosion, which was heard twenty six miles away, was caused by an accumulation of gas in the steamer's hold. The hatches having been thrown open, a man entered with a light. Instantly the ship was blown to pieces.

BRITISH BOARD OF TRADE REPORT OF FAILURES.

The financial troubles in Australia and South America, the operation upon many of the manufacturing industries of the country of foreign tariffs and competition, and the frauds and failures in connection with building and other industrial societies, not to speak of the many disputes between employes and employers, made up a record which it makes one sad to peruse. Having such a state of matters in view, it is not to be wondered at that the report on bankruptoy [in Great Britain] should show a heavy tale of disaster; and yet, perhaps, the story is not so gloomy as might have been expected. Indeed, the Inspector General points out, that, although the annual amount of insolvency is now nearly equal to that of the maximum year since the present Bankruptoy Act came into existence—that is, since 1863—it is still far below that of the period governed by the preceding Act—that is, from 1869 to 1883; and that the average amount of liabilities on the failures of the present is also very much smaller than that of the preceding period. Following up this statement of fact, the Inspector-General ventures the opinion that the general business of the country is apparently in a condition sufficiently sound to withstand the shock, which it has undoubtedly received with so little apparent damage. His explanation of this circumstance is that the losses occasioned by many of the disasters have fallen not so much upon the trading community as upon the investing classes.

Let us now glance at some of the Inspector-General's figures. These show that the number of receiving orders made under the Bankruptoy Acts, 1863 and 1890, in 1892, was 4,635, an increase of 419 over the preceding year. The liabilities amount to £8,763,031, an inorease of £200,090; the assets to £3,078,393, a decrease of £74,026, and the estimated loss to oreditors to £6,691,641, an increase of £261,-104. Under the Deeds of Arrangement Act, 1887, the number of deeds issued was 3,333, an increase of 325; the liabilities were £5,957,-022, an increase of £864,574; the assets were £2,937,315, a decrease of £169,440; and the estimated loss to creditors was £3,998,812, an increase of £977,534. Here, then, we see that there was an increase in the loss to creditors of one million and a-quarter, while the estimated assets to liabilities have fallen from 36-8 in 1891, to 35-1 per cent. in the following year. This statement is bad enough, in all conscience, and yet it does not show the whole of the losses sustained by creditors. The Inspector-General informs us that the record of insolvency would probably have been considerably greater, but for the fact that some portion of it, which would formerly have appeared in the bankruptoy statistics, now appears in connection with the winding-up of limited companies. — Martineau & Smith's Journal.

A BROOM CONTEST.

"Let me see your best brooms," said a little woman, excitedly, as she plunged into a grocer, store. "Green or dried?" asked the grocer, putting his pen over his ear and rolling up his sleeves. "I said brooms," snapped the woman. "And I meant brooms," answered the grocer, civilly; "but there's a difference. Some are new made and green, while others are dry and seasoned. Some women folks won't touch a real dry broom—they allow the corn seeds to come off in the sweeping." "I ain't saying nothing about sweeping," said the woman. "I want a good, strong shank that is put together for all it is worth, and a handle that won't snap the first time that I use it."

The grocer trotted out his brooms, and the little woman hefted each one with a practised hand. Finally she selected one that was unpainted and homely, but as heavy as a cart wheel. "How much is that one?" "Forty cents, ma'am. It's the biggest and best in the lot, though it don't look as fanoy as the rest." "Forty cents. I've used up a hundred brooms since I married that last husband of mine, and Frain't never paid over a quarter, and I ain't goin' to, what's more." "Madam," said the grocer, standing the broom up in a corner, "it ain't a broom that you want, in my opinion—it's a club." Then he backed discreetly behind the counter, and the sale was off.

SHOP-LIFTING PUNISHED.

Two women, apparently respectable, were caught last week stealing shoes from a large store in Toronto, and sentenced to prison at hard labor. This week a woman is arrested for robbing various Yonge street shops of pencils, stockings, soap, etc. The police magistrate said, in sentencing the former: "I have again and again brought before me

"I have again and again brought before me ladies of respectable appearance, in comfortable circumstances and of previous good oharacter, who are perpetually doing this sort of thing, which is reprehensible in the extreme. The time was when I used to let these people go on suspended sentence, and they imagined that all they had to do was to keep their names out of the papers and the public would be none the wiser. Owing to this there has been a constant and increasing number of cases of this kind brought before me. I wish the public to be warned that to put a stop to this sort of thing the sentences for shoplifting will be more severe every time, and I hope the press will give every publicity to them that they may be stopped. They form a gross scandal on the city, and though the sentence I am about to pass of 20 days' imprisonment with hard labor will be felt by the defendants far more than a term in the penitentiary by professional thieves, I have no alternative as police magistrate in the discharge of my duties but to send them down for that term. I hope this will be a warning to others."

PROFITS OF THE WORLD'S FAIR.

AN ESTIMATE THAT THE ADMISSION FEES WILL AGGREGATE \$21,000,000.

Chicago, Oct. 23.—With only one full week left of the official exposition season, a close estimate can be given of the profits made by hundreds of concessionaires in Jackson Park and the Midway. Chief Clerk Blackman, of the Administration and Collections Depart. ment, figures that the profits of the concessionaires will aggregate \$4,000,000 after deducting the percentage to the Exposition. This represents about twenty per cent. of the gross receipts. Most of the concessionaires have made money after paying from 25 to 50 per cent. into the Exposition treasury. The Ferris Wheel Company will pay a profit of about \$260,000, after deducting \$300,000 for cost and 50 per cent. of the receipts paid to the Fair after that amount was taken in. When the Dockery Congressional Committee was in Chicago investigating the finances of the Exposition and its estimates of revenue while the \$5,000,000 loan bill was before Congress, as little as \$1,000,000 was estimated as the income from concessions. Big restaurants in the park, particularly those of the Wellington Catering Company, have found their concessions sions the most profit side of the ledgers. The total paid admissions up to the closing

The total paid admissions up to the closing hour last night was 19,712,996, and Superintendent Tucker said the finances will go to \$20,500,000 by next Saturday, leaving Sunday and Monday, which should bring the grand total up to \$21,000,000 if the weather is favorable.—N. Y. Jour. Com.

HEATING BY ELECTRICITY.

In some of the hotels in the West a system of heat regulation which is certainly novel is carried out. For instance, a guest occapying Room 156 asks for heat. The order is transmitted to a particular person, the typewriter of the hotel generally. She goes to a switchboard and connection is given electrically with that room, allowing heat to pass into it. The occupant of the room is, perhaps, particular. A hot blooded person wishes merely to keep from freezing; another wants a high temperature. Each can have his wish, for a thermostat with a pointer is on the wall, and the room will keep itself automatically as desired. The regulation is 70 degrees, but it can be departed from as stated.—Hardware.

⁻Teacher: "For men must work and women must weep." What is the meaning of that line, Tommy Flagg? Tommy: It means that the men has to get money, and the women has to cry before the men will divide with them.