

DETECTIVE FIRE ALARM BOX.

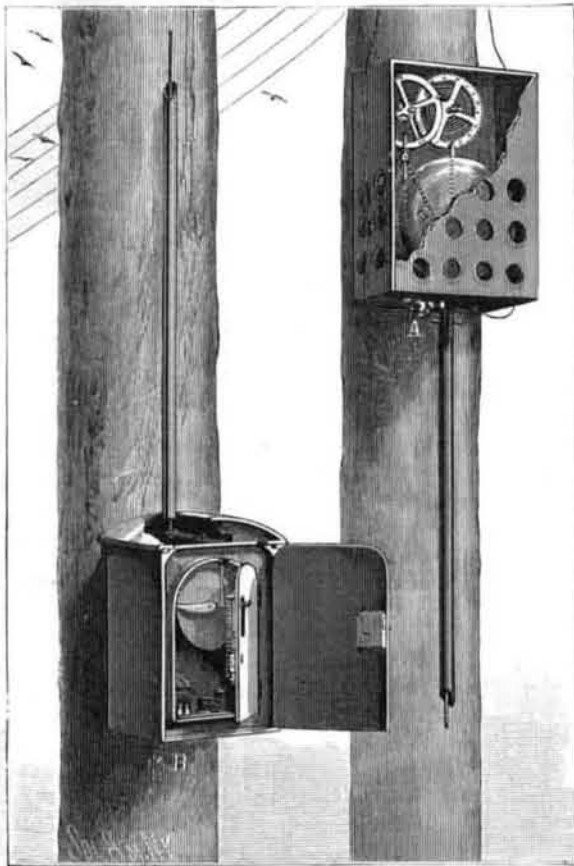
Fire-alarm boxes, as usually arranged, are accessible for sounding an alarm by a door which is opened by a key, and any one in possession of a suitable key may give an alarm. A new and valuable invention for preventing and detecting the sending of false alarms has just been patented by Sergeant James J. Brophy, of the New York police department.

We feel satisfied that any who understand the working of this invention would be deterred from attempting to send a false alarm; and should any attempt it, they would almost certainly be detected. While it does not in any way interfere with the opening or closing of the box, the slightest movement of the alarm pull, or tampering with the connecting rod, will send it off. The invention is a mechanism for giving a local alarm only, when the pull by which the fire alarm is given is moved, and the usual construction of the fire alarm box is not changed.

In the accompanying engraving the ordinary fire alarm box, A, is shown fixed upon a pole, and the axis of its circuit closer extends through the back plate of the box to a space between the back plate and the pole, and within this space upon the axis is placed the device for operating the local alarm, which is not accessible through the box.

On the pole, at such a height as to be accessible only by a ladder, is fixed the local alarm box, B, which contains a gong of large size, the hammer of which is caused to strike by the rotation of a spring barrel, to which it is connected by suitable devices.

Between the box A and the box B is a rod that is contained within an iron tube, so that it cannot be tampered with, and just beneath the box B the rod is provided with

**BROPHY'S FIRE ALARM BOX.**

a cross pin, that is to be used for raising the rod after an alarm has been given. The lower end of the rod is so attached to the alarm pull that the slightest movement of the pull will give the local alarm, and the gong being large and the spring of striking device long, the noise is great and prolonged, and calls the attention of all in the immediate vicinity. After the alarm the fireman winds and sets the device, which is accessible only by means of the key, and it is ready for action again. The noise of the local alarm is so loud, and comes so suddenly, that the person giving a false alarm is sure to be detected.

The risk of life and property, and in many cases the actual loss, attending false alarms, would pay the entire expense of attaching the detective alarms to all the fire alarms of the city.

Only a few days since a false alarm called a number of companies to Forty-third street and Tenth avenue, and while they were away a fire broke out in a lumber yard at the foot of West Sixteenth street, and before the arrival of the companies had gained considerable headway, and came very near being a disastrous fire, and such cases are not un-frequent.

Further information with regard to this invention may be obtained from the patentee.

Exhibitions.

An interesting exhibition of foods, cookery, and the like, began in this city, May 15, under the auspices of the American branch of the "Union Universelle de l'Art Culinaire." The exhibition, to continue two weeks, is managed by some of the leading chefs of New York. It embraces groceries of every description, meat, provisions, poultry, game, fish, canned goods, dairy products, vegetables, fruits, flowers,

confectionery, champagne, wine, liquors, cordials, ale, lager beer, mineral waters, dining room furniture, cooking apparatus and utensils, table linen, table silver and plated ware, and china and glass table ornaments, in fact, everything appertaining to the table. The society will award medals to exhibitors according to merit. These will be divided into two classes and an honorable mention: to the first class, a medal of gold, for superiority; second, silver, for excellence; the third, an honorable mention, for good quality. The judges will consist of New York business men. A dinner is served daily, illustrating in turn the gastronomy of different countries.

The exhibition of agriculture, mechanics, commerce, and art, now running in Nuremberg, Bavaria, is described as the largest ever held in Germany. There are upward of three hundred exhibitors, representing trade and industry, with interesting exhibits of raw products, materials partially manufactured, processes for art restorations, panels and other decorations of great variety, articles of trade, machinery, and general works of art.

The unfortunate destruction by fire, May 12, of the building set apart for the Berlin Exhibition for Hygiene and Life-saving, next summer, may delay, but will not prevent the exhibition. Liberal subscriptions have already been made toward a new building.

The Continental Exhibition which began in Buenos Ayres March 12 is said to be doing well. The exhibition was specially planned to foster South American industries, all foreign products except machinery being excluded.

An intelligent spectator at the inauguration of the exhibition was particularly impressed by the wonderful profusion of native products, especially from the provinces, and by the paucity of purely native industries. Although the city and province of Buenos Ayres make a good show in leather work, furniture, and carved woodwork, glass, inks, jewelry, millinery, carriages, typography, lithography, photography, liquors, beers, biscuits, metal castings, mosaic and tilework, etc., such was chiefly due to the intelligent foreign workmen resident there, making use to a very great extent of foreign material. On the other hand the ores, marbles, wines, cereals, wool, silk, hides, leather, tans, woods, lignite, medicinal herbs, rice, tobacco, sugar, cotton, fruits, manures, dried and potted meats, fossils, etc., of the interior parts of the country gave evidence of a future wealth which is boundless.

A singular exhibition is announced to take place at Rochester, N. Y., from June 19 to June 24, being a show of goods and appliances used in connection with the burial of the dead. A large building has been secured. Here will be shown the various apparatus and compounds for embalming, for temporary preservation of bodies with ice, all kinds of coffins and caskets, hearses, carriages, funeral fabrics, mourning liveries, funeral costumes for the clergy and for the friends of the departed; in fact, every item and feature pertaining directly or indirectly to the funeral business will be represented, with the latest improvements.

Unprecedented Immigration.

The immigration to this port during the last month is unprecedented in the history of the country. The total arrivals, according to the official files at the Custom House, were no less than 70,376, an increase of 9,100 over the same month in 1881. The total arrivals from January 1 were 142,716, against 109,123 for the same period last year, or an increase of about 23 per cent. Of the arrivals during April, 1882, 28,533 were Germans, or 39 per cent against 47 per cent of Germans in the immigration of April, 1881. The other nationalities were represented as follows: Ireland, 7,836; Sweden, 7,189; Italy, 6,391; England, 6,486; Holland, 2,691; Norway, 2,282; Denmark, 2,057; Switzerland, 1,794; Scotland, 1,199; Austria, 956; Russia, 775; Bohemia, 579; Hungary, 405; France, 385; Poland, 192; Wales, 117; Belgium, 99; other countries, 410. These figures, as compared with the arrivals in April, 1881, show that England, Ireland, Wales, Scotland, Holland, France, and Belgium about hold their own, while there is a falling off in the German immigration for the month, although a gain for the four months as compared with the first four months of 1881. There is a gain in the Italian immigration for April of more than a hundred per cent over the same month last year, and the proportion of increase runs about the same for the four months. There is also a gain of about 40 per cent in the Swedish immigration as compared with April, 1881. The increase of Norwegians is the greatest, there being 2,232 as against 317 for April, 1881. The Danish immigration is nearly a hundred per cent greater than in April last year, being 2,027 against 1,263. The Swiss immigration shows about the same proportionate increase, being 1,794 against 1,001. The sudden movement of the Russian Jews to this country increased the immigration of that nationality more than 200 per cent, but there is a greater proportionate falling off in the Polish Jews, there being only 192 during April, as against 2,114 in the same month last year. There is also a falling off in the Austrian immigration of about 30 per cent.

With the exception of the Italians and the Jewish refugees these new comers are for the most part well provided with money and household goods.

THE NEW EDDYSTONE LIGHTHOUSE.—The new Eddystone Lighthouse was formally opened May 18, by the Duke of Edinburgh Commodore Luce and other American naval officers were present.

NEW TRACHEOTOME.

It is somewhat of an innovation for a regular physician to patent a surgical instrument; but the practice is coming into vogue of late for the simple reason that if it is proper that one doctor should receive a royalty in compensation for the labor he has bestowed upon producing a valuable medical book, another for the same reasons should be remunerated for similar work in bringing out a useful surgical instrument.

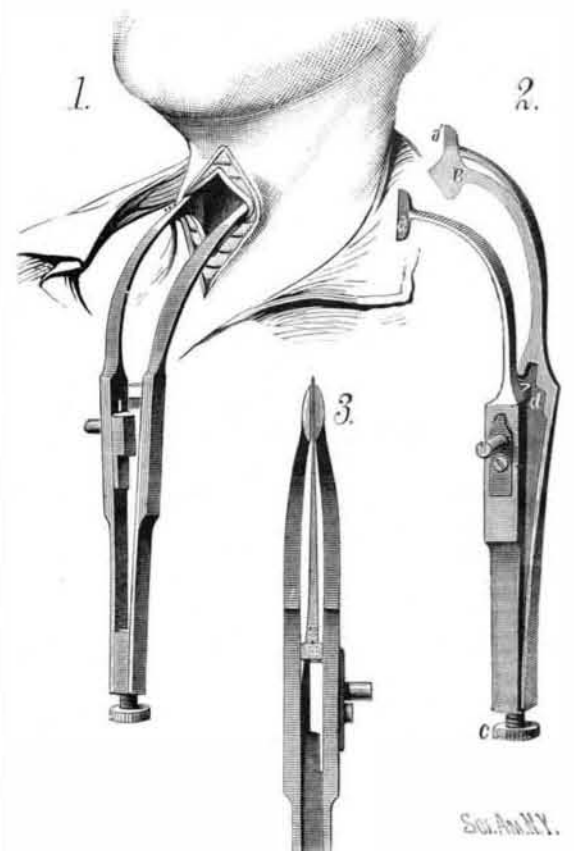
The accompanying cut represents a tracheotome designed to facilitate the operation of opening the trachea, or windpipe, in all cases requiring such a procedure; but is more especially useful in cases of emergency, as with this instrument the surgeon can safely proceed without having to wait until he can secure the help of skilled assistants.

Fig. 3 represents the instrument closed, ready for use, showing its under surface.

Fig. 2 shows it expanded, so that the spring arm and blade can be removed by loosening the thumbscrew.

Fig. 1 shows the instrument dilating the opening after the incision has been made and the blade removed.

a a' are two spring arms that have their outer ends curved to nearly a right angle with the body of the instrument, and their points are furnished with T-projections. The spring arm, *b*, is fastened to the heel of the instrument by the thumbscrew, *c*, which passes through a slot in the end of the arm, so that it can be readily removed. The outer portion of this arm is curved to conform to the arms, *a a'*, and on its extremity is formed a blade of peculiar shape, which, when the instrument is closed, projects beyond the T-extremities of the arms. By compressing these three arms the instrument is closed, the T-projections embracing the blade firmly, and

**IMPROVED TRACHEOTOME.**

the whole is secured by the slide catch, *d*, and the instrument is compact, firm, and ready for use.

In performing tracheotomy with this instrument the usual dissection is made until the trachea is sufficiently exposed, when the tissue is pressed back and the trachea grasped with the left hand and slightly compressed. The point of the blade of the tracheotome is then pressed upon the trachea, and by a slight movement as many of the rings as is desired are quickly cut, the lower borders of the projections acting as guides and preventing the blade from going too deep. The projections at the sides of the blade are then passed into the trachea, when the spring catch is drawn and the spring arms spread apart, and the blade is instantly thrown out of the opening and may be removed. The spring arms of the instrument tend to dilate the opening completely and keep it in that condition, and the T-projections prevent it from slipping out, and retain it until the surgeon desires to remove it. In urgent cases the tracheotome may be passed directly into the windpipe without making the preliminary dissection, and almost instantaneous relief is given to the patient. We are informed that the instrument has received the indorsement of eminent members of the profession.

Further information may be obtained by addressing L. J. Lyman, M.D., Manhattan, Kan.

The British Association.

The British Association meets this year at Southampton, beginning August 23. Dr. C. W. Siemens will occupy the chair. Meetings of the several sections will be held daily until August 29. The concluding general meeting will be held August 30.