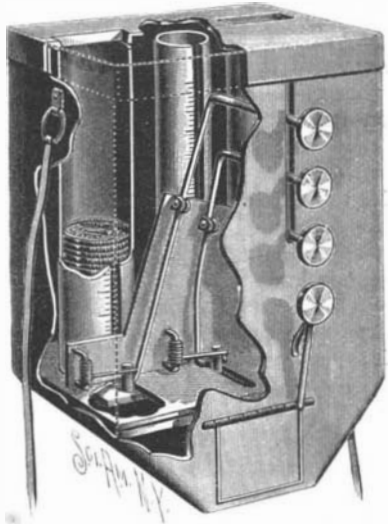


A COIN HOLDING AND DELIVERING DEVICE.

A convenient means for carrying assorted pieces of money, and delivering the coins one by one as required, is shown in the picture, the device being adapted for suspension upon the person by means of a strap, or to be fixed in position for store use. The improvement has been patented by Mr. Ernest Berrini, of Seattle, Wash. The case has a forwardly inclined, hopper-like bottom, with an outwardly swinging door, an upwardly extending key or lever, by which the



BERRINI'S COIN HOLDER AND CHANGE MAKER.

door may be opened, terminating in a finger piece, the key being normally pressed outward by a spring, which also holds the door closed. In the removable cover of the case are slots, through which coins may be passed to the coin tubes, which are removable, and any desired number of tubes may be used. Each tube has a vertical slot on one side, through which the coin may be seen when the tube is removed, and at the side of the slot is a graduated scale, by means of which the amount of money in the tube may be determined without counting. Beneath each tube is a slide moving horizontally between two base plates, each slide having a hole of the same diameter as the bore of the tube, so that the bottom one of the coins placed in the tube will drop into and occupy the hole in the slide and lie flatwise on the lower base plate. Each slide is normally pressed back beneath the tube by a spring, but when a slide is moved forward by pressing upon the key connected with it, it carries with it a coin, which is dropped into the hopper, from which it may be removed by pressing upon the lower finger piece. Upon a plate at one side of the tubes are fulcrumed tilting keys connected with the slides, and whose upper ends are bent outward through a slot in the case, where they terminate in finger pieces, which should be appropriately marked to indicate the denomination of the coin in the tube with which they are respectively connected. When the device is arranged for use in a store, a bell crank adapted to sound a gong is connected with the key by which the door in the hopper is opened, thus giving notice when the door is opened or any money is withdrawn.

Ebonite Packing Rings.

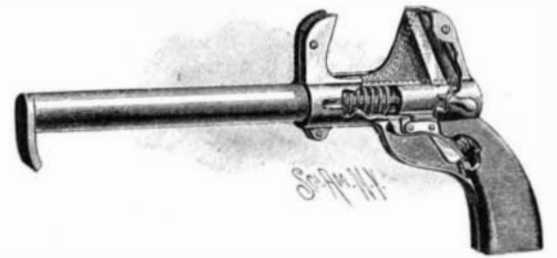
The pistons of the high pressure air compressors of the pneumatic tramway of Bern are packed with ebonite rings, which, like cast iron rings, fit in grooves, and are pressed against the cylinder sides by a double brass spring. Pistons thus packed are said to be tight to last from three to four months, and to be cheap, and there is no wear of the cylinder sides.

A QUICK AND SURE CHICKEN BEHEADER.

The illustration shows a device for severing the head from the body of a chicken by simply pulling a trigger, without torturing the chicken or trying the nerves of the sensitive. The improvement has been patented by Mr. J. C. Denham, editor of the *Journal of Agriculture*, 1120 Pine Street, St. Louis, Mo. The barrel of the implement incases a main spring, and at its rear end is clamped by a breech block having upwardly extending flanges, forming guides for the knife, the flanges being recessed in the center to afford space for placing the neck of the chicken, and the beheading knife sliding across this space between the flanges. The knife is inclined, and its lower end slides in a slot in the top of the barrel, where it is secured to a sliding plunger, to which one end of the main spring is attached, the other end of the spring being secured to the barrel. In the front end of the barrel is a cushion, against which the extended shank of the plunger strikes, absorbing shock and limiting the forward movement of the plunger and knife. The plunger and knife are pulled back against the tension of the spring by handles on the sides of the plunger, the handles projecting through side slots in the breech block and barrel. A notch in the bottom of the plunger receives a pawl on the front end of a curved trigger, by which the knife and plunger are held in a rearmost position when the device is to be used. A depending hook or flange on the front end of the barrel may be hooked upon some object to facilitate pulling back the plunger, or to steady the implement when it is used. When the neck of the chicken is placed in the space provided therefor, and the trigger is pulled, the plunger is instantly released and the knife drawn rapidly forward, the cut being effected with certainty, neatness, and dispatch.

alarm whence the signal came in order to ask exactly where the fire was, and they did not know its nature.

So, while installing the Petit apparatus, the fire department, and particularly its eminent engineers, Commandant Krebs and Captain Cordier, set about to find something better. The ideal was to be able to permit the public to telephone to the engine houses all the details of the location, extent and nature of the fire. Unfortunately, the practice of telephony is still unfamiliar to many persons, and consequently what was necessary was an absolutely automatic apparatus that would attract the attention of the station by a bell, making known to the person calling that the indications given were understood. A very ingenious apparatus, due to Mr. Digeon, has been under trial for some time,



DENHAM'S CHICKEN BEHEADER.

and, having proved successful, has been rapidly put in service in a large number of quarters.

As to external aspect, this new apparatus differs but little from the Petit system. Like it, it comprises a square box painted red, mounted upon a column in the shape of a lamp post. The alarm and telephone, inclosed in the box, communicate, through wires running to the interior of the column, with two cables coming from the central station through the sewers. Let us walk around the apparatus: Here is the door, into which is set a small glass. At the top of the door we read: "In case of fire, break the glass and then cry out distinctly in the mouthpiece of the telephone the nature of the fire, the street, and the number" (Figs. 1 and 2). The normal type of alarm is provided with a small hammer like a door knocker, which permits of effecting the breakage of the glass, but this has been removed, since it gives rise to mistakes. Let us strike

NEW FIRE ALARMS.

A few years ago we described the fire alarms that were being put in service in the streets of Paris. It was a question of an alarm upon a column, due to Mr. Petit, and in which a button pressed by a person asking for help actuated a bell and a clockwork that gave a signal at the engine house along with the number of the alarm brought into play. While offering decided advantages, this system was defective in some points. The firemen always had to proceed to the

hard, as another inscription tells us to, and, according also to these same instructions, the door will open and reveal the mouthpiece of the telephone placed in the interior. This opening, in fact, reveals itself to us at the bottom of the box, surrounded by the inscription in exergue: "Mouthpiece of the telephone." The directions are intelligently multiplied throughout the apparatus, and the most excited person cannot fail to see them. When the door opens, a ringing occurs that attracts the attention of passers-by and points out jokers. If we take a look at the enameled iron plate at the bottom of the box, we see that, as soon as the ringing ceases, we must shout in the telephone the fire that it is necessary to fight, and repeat this information until a roaring sound is heard, and which signifies that the firemen have started. After following these instructions to the letter, we can leave the apparatus, whose door remains persistently open. There is nothing more simple than all this, even for a child.

When a person breaks the glass he bears at the same time upon a metallic plate that swings upon a horizontal hinge above, and this motion disengages the bolt of the door, which opens through the pressure of three springs. A very simple play of levers frees the alarm bell, which is analogous to that of the old apparatus; but, at the same instant, this opening of the door sets in motion

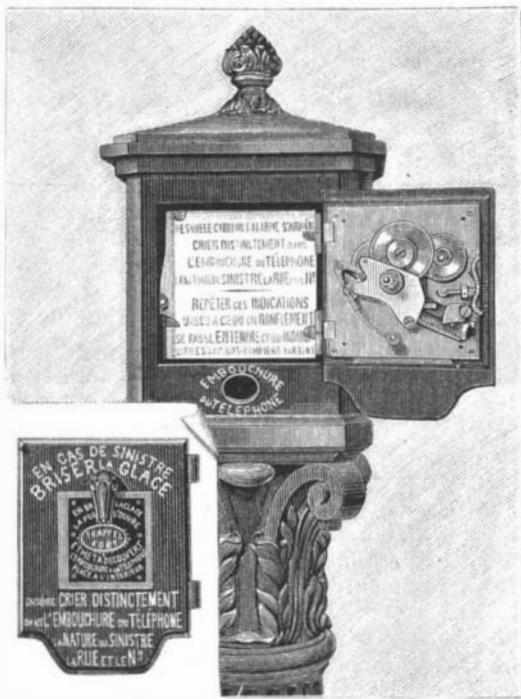


Fig. 1.—NEW FIRE ALARM.



Fig. 2.—MANEUVER OF THE APPARATUS.

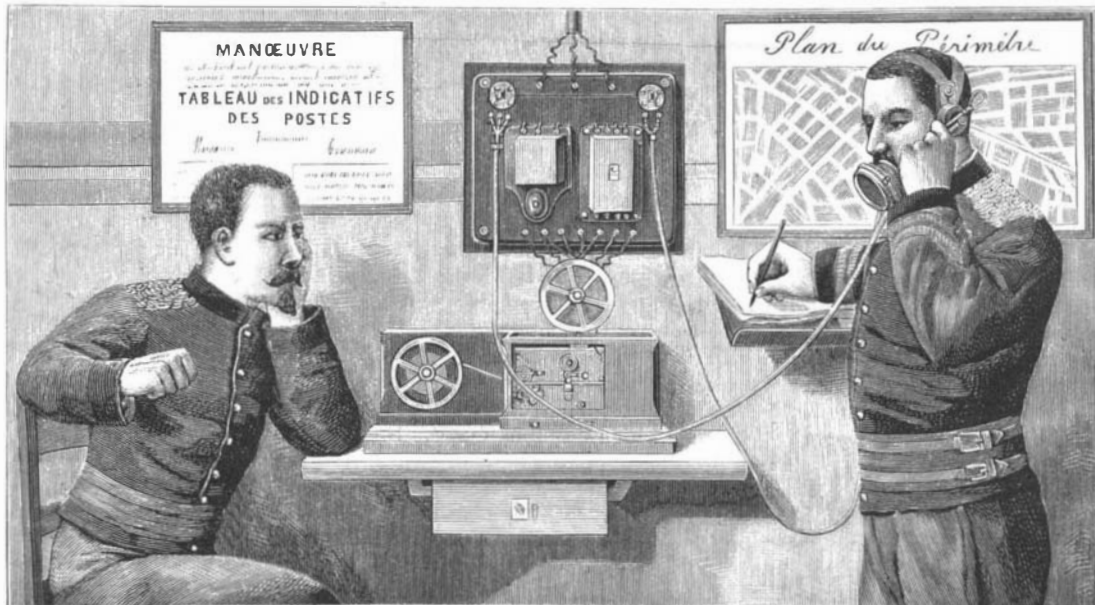


Fig. 3.—RECEIVING APPARATUS IN AN ENGINE HOUSE.