NEW INVENTIONS.

Alarm for Tills and Drawers.

Mr. F. C. Goffin, of No. 293 Rivington st., this city, has invented a useful improvement for tills, drawers, &c., which will no doubt soon be very generally applied, as it will cost but little to procure them. It consists in applying a bell or gong to a till or a drawer, or to a door of a safe, or to any place of a secret kind. The alarm is so placed that no person can see it, and those who know about it, such as the owners of the drawer, till, &c., ortheir clerks, can operate the the drawer, &c., without working the alarm; to strangers, therefore, it is so set that they operate the alarm, and thus they can be detected when engaged with intent of burglary. It is a simple, ingenious, and cheap alarm.

Measures have been taken to secure a patent.

Superior Sand Paper.

Among our advertisements is one of Mr. William B. Parsons. We sedlom notice things which appear in our advertising columns, from a fear that it might—and very naturally too—be supposed, that we flattered for the trade. We never do this, because it is not right. We say here that we have examined the sand paper of the firm spoken of above, and as we know that there is much indifferent sand and emery paper in the market, which gives great trouble to our joiners, and cabinet-makers especially, we can recommend this as being the best we have ever seen. It is tough and durable, and very evenly. It is a great improvement in this useful article.

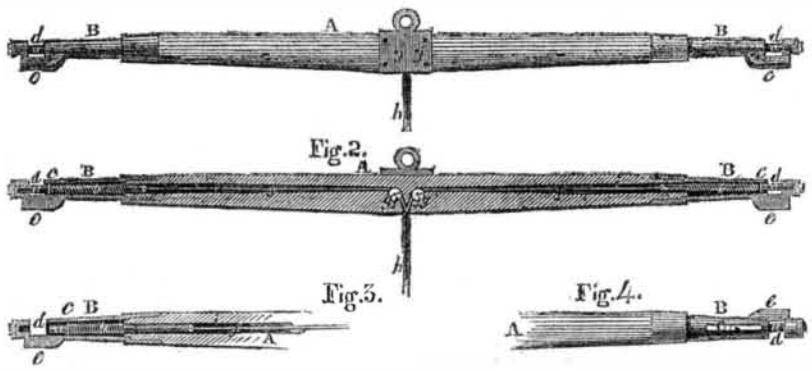
Safety Whiffletree.

The accompanying engravings represent an improved Safety Whiffletree, invented by Mr. Nelson Adams, ot Columbus, Warren Co., Pa., who has taken measures to secure a patent for the same.

Figure 1 is a plan view; fig. 2 is a horizontal section; figure 3 is a horizontal section of one end of the whiffletree—the sliding bolt being drawn in, and fig. 4 is an under view of one end ot a whiffletree, showing the slide by which the sliding bolt is drawn in, when it is desired to fasten the trace to the whiffletree. The same letters of reference indicate like parts.

The nature of this invention consists in having a hollow whiffletree, with interior sliding catch bolts, to which is attached a chain or cord—at the command of the driver—so that if the horse should get unmanageable, by simply pulling the cord or chain the traces are set free, and the vehicle is left behind. In many cases this invention is one of necessitous importance. A is the whiffletree, and B B are two metallic collars or tubes which fit on the whiffletree, one on each end, as shown particularly in the horizontal section; *a a* are two sliding bolts which fit in the tubes, a spiral spring, *b*, being coiled around each bolt, the inner ends of the springs resting against the ends of the whiffletree. The outer ends of the springs bear against buttons, *c c*, on each bolt near recesses, *d d*; these recesses run transversely across the tubes, the extreme ends of the tubes being connected to the other portions by projections, *e e*, at the sides. The bolts, *a a*, cross the recesses and enter the ends of the tubes. To the inner end of each bolt there is attached a cord or chain, *f*, this cord or chain runs longitudinally in the whiffletree, and passes round the pulleys, *s s*, and then unites, forming a double cord at *h*, which passes into the vehicle. There is an opening or hole, *i*, in the whiffletree at each end, for the bolts to work in, and also holes for the cord or chain, *f*. There are also recesses for the small pulleys, *g g*; they are inclosed in the inside of the whiffletree; *j j* are the axes of the pulleys. The spiral springs keep the sliding bolts distended outwards, to retain the traces in their proper places. The traces are pushed into the recesses, *d d*, and the sliding bolts pass through their eyes like common bolts. There is a slide, C (shown in fig. 4), which is attached to each sliding bolt, *a a*, by a small pin; there is also a slot in each end ot the whiffletree, so that by pressing this slide, C, with the thumb and finger, the sliding bolt, *a*, will be drawn in, and the end of the trace allowed to enter the recess, *d*; by taking the hand off the slide, C, the bolt shoots into the eye of the trace, and thus the horse is harnessed to the vehicle. The whiffletree may be made of cast metal or of wood. The devices to make it a safety whiffletree are simple, and will, we believe, be understood by all. The utility of this whiffletree is. self-evident, and we hope it will soon be very generally adopted. More information may be obtained by letter addressed to the inventor.

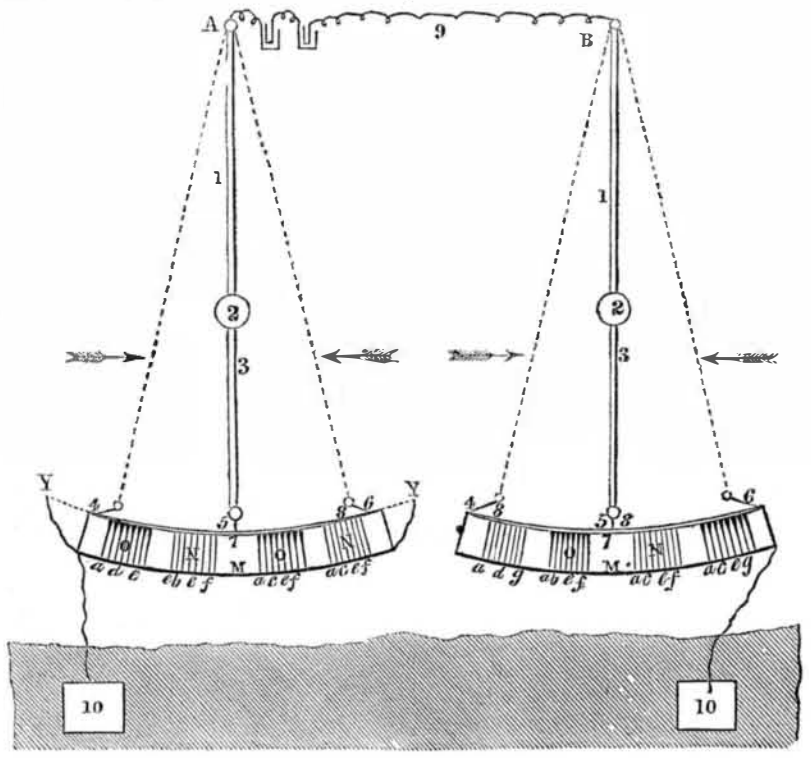
Fig. 1.



NEW CLOCK TELEGRAPH.

The accompanying engraving represents a Telegraph recently patented in England in the name of Alfred Vincent Newton, Esq. It relates to an arrangement of apparatus, whereby two or more persons at distant places can, by the agency of electricity, receive or send intelligence by signals through the medium of one wire or main conductor at the same time. The rapidity or closeness in the order of succession of the signals, together with the indefinitely short time required for the passage of the electricity in conveying or transmitting the signal or electric action, is such that all persons employed in these telegraphic operations can be continually and simultaneously communicating, as though each had the distinct and separate use of the main wire for the whole time required for his particular message. By the means herein adopted, the same practical telegraphic results are obtained, through the agency of one wire, or main conductor, as in the several kinds of electric telegraphs before known or used, requiring several distinct wires of communication.

The engraving represents two separate stations, at A and B, furnished with the necessary apparatus, whereby to transmit and receive intelligence. Suppose A to be the standard station, a pendulum, I, is erected at each, which has an oscillatory motion communicated to, and maintained in it, by means of wheel-work, having suitable maintaining power, such as a spring or weight, as in the ordinary clock. These pendulums must be so regulated in their motion, as to move in unison with each other, that is to say, they must both



move from left to right, which is regulated and determined, as will be afterwards explained; 2 is the bob or weight of the pendulum; beyond this weight a rod, 3, is extended, to give the extent of motion at the extremity required for the facilities of transmitting and receiving singals, which will depend in a great measure on the number of parties desiring simultaneous communication; 4, 5, 6, and 4, 7, 6, describe two path-ways, which have suitable grooves in the upper surface; these grooves receive the end of a link, 8, attached to the pendulum-rod, which is so arranged, with respect to the paths or grooves, that when traversing in one direction, it moves in the groove or path 4, 5, 6, while, in the opposite direction, it moves in the path or groove, 4, 7, 6. The end of the link is held by a suitable form retained in the groove, taking care that sufficient freedom is permitted, so that it will not produce any irregularities in the motion of the pendulum. The pendulum-rod, 1, 3, and link, 8 are of material suitable for conducting electricity. The point of suspension of the pendulum is placed in communication with a Leyden jar, charged with electricity by an electrical machine, or voltaic battery, and from whence, also, the wire, 9, places it in similar communication with the pendulum at B, the wire, 9, being the line wire through which the whole of the signals are to be transmitted; 10, 10 are the earth-plates which complete the circuit, as well understood. Supposing A to be the standard pendulum, and the arc of the pendulum's motion is from Y to Y, a wire communicates from the earth-plate at that station, (the point Y), on the left where there are two parallel metal faces placed near together, and at Y. on the right one, is another such face, to which another wire communicates from the segmental bar, M M, which is permanently in connection with the earth-plate, and is a conductor of the electric fluid. If the pendulums are set in motion, so as to swing from Y to Y, and with all the necessary connections above described, the following observations will determine whether they oscillate in unison. If the motions of the pendulums agree on passing the point, Y, on the left, at station B, two sparks will be visible, by reason of the two faces situate at that point, at station A, while at Y, on the right, only one spark will be visible; but should their motions disagree, then these sparks will be visible at some other point, denoting the inaccuracy, which must be rectified before any communication can be made. This can readily be effected by means of suitable signals being transmitted specially for that purpose. The motions of the pendulums, when corrected, will be regulated by the wheel-work by which they are actuated, and which, if desired, may have a separate pendulum for that purpose.

N N are two series of the accessory short wires before mentioned, for transmitting the several signals, and O O are two similar series of wires for receiving signals. It will be observed that the relative positiohs of these several series are reversed in the different stations, so that supposing one pendulum to be passing over the transmitting wires, N, at one station, the other would be opposite the receiving wiresof the other station. Although only eight of each of these wires are shown, it is intended that each series should consist of at least twenty-six, to accord with the letters in the alphabet, which they are severally intended to represent, as marked. The receiving wires are fixed permanently between the path 4, 7, 6, and the segmental bar M; the upper surfaces of these wires may be each about half-an-inch broad, which faces are level with the path in which the link, 8, is in contact, and which effects contact with each of these wires successively, as it passes over them. The other series of wires, N N, for transmitting signals, is of corresponding numbers, but simply consists of wires, which are also supported in the bar, M, but do not quite reach the path, 4, 7, 6, but are capable of being slid up to the same level as the faces of the receiving wires. Suitable arrangements are made for keeping the transmitting wires down, unless elevated for the purpose of transmission, by the pressure of the finger, or suitable apparatus in connection therewith, acted on by the operator.

One oscillation of the pendulum, that is, to and fro, is supposed to occupy the time absolutely necessary for a person to transmit or note a signal; a succession of signals is therefore produced at so many repeated and successive oscillations. Thus supposing a person to be engaged in transmitting signals from station A to station B, he will engross the use of one series of transmitting wires, N; by the proper use of the wires in succession, he may spell the several words which he desires to communicate. By elevating the particular letter of the series, say *a*, the wire so denominated will effect contact with the link, 8, as it passes, which will complete the circuit at this station; and simultaneously with the contact of the link, 8, at station A, the link, 8, at station B, will be in a precisely similar situation with respect to the receiving wire denominated *a*, at that station, which is indicated by a spark and noted down as the signal. The pendulum having completed its oscillation in the direction it is then moving, then vibrates in the opposite direction, but without effect, as the link, 8, returns by the other part. On reversing its motion again, the person transmitting the signals, having relieved the wire corresponding to letter *a*, raises another wire, say corresponding to the letter *c*, which is in like manner indicated by a spark on the passing of the pendulum link, 8, past the points of transmission and reception, as before described. In this manner a succession of signals may be transmitted, one at each double oscillation of the pendulum, so as to compose any communication it may be desired to make. In like manner, three other persons may be employed in transmitting and receiving intelligence at each station, that is to say, eight persons in all; two at each station making use of the transmitting wires, and two at each station receiving intelligence. By employing a greater number of sets of the transmitting and receiving wires, a greater number of persons may be simultaneously engaged in transmitting and receiving intelligence through one and the same line wire, which will only be limited by the extent of the arc of vibration restricting the repetition of the sets of wires. The sets of wires should be confined to the smallest possible space consistent to insure the requisite certainty of action. The action of this telegraph, although singular, must of course be much lower than the Morse or Bain telegraphs.