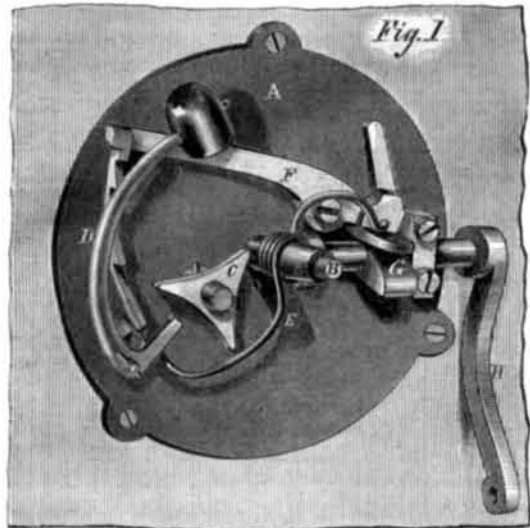


COLLINS AND SIMS' COMBINED DOOR BELL AND BURGLAR ALARM.

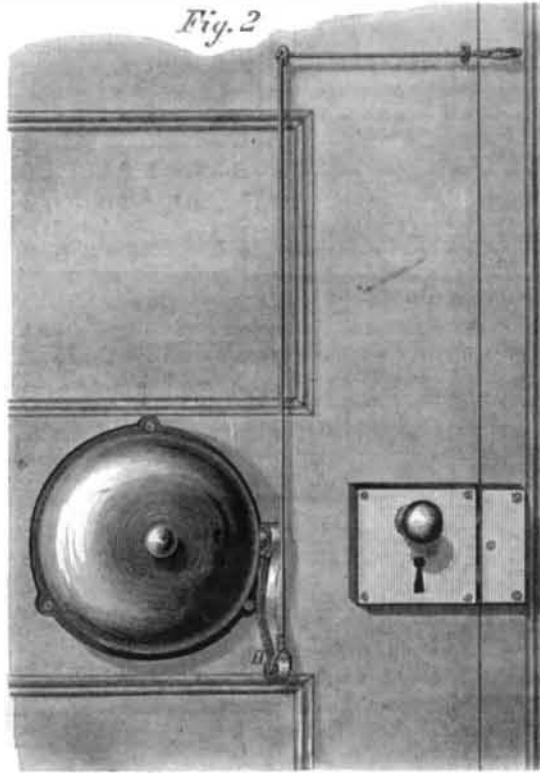
The engravings represent a device intended to act as an ordinary day alarm for visitors in place of the common door bell, and also as a means of notifying the inmates when the burglar attempts to unlawfully enter. Fig. 1 represents the mechanism, the bell being removed to show the parts. A, is



a plate of metal to be secured to the inside of the door. The bell—the ordinary gong-shaped bell—is screwed on the center spindle, B. C is a cam secured to a shaft passing through the door, and fitted on the outside with an ornamental crank. When it is turned the points engage with the arm end of the hammer lever, D, bringing the hammer back toward the center of the plate for a blow. The spring, E, when the hammer is released from the cam, throws the hammer against the bell. This is the mechanism for the ordinary purposes of a door bell.

When, however it is to be used as a burglar alarm another device comes into play. The curved lever, F, is provided with notches at one end which are arranged so as to come in con-

tact with the lower end of the hammer lever. This notched lever is operated by a cam, G, on the horizontal shaft which actuates the lever, F, against its short end, and depressing the notched end, brings the hammer back for a blow. To the shaft is attached a handle, H, which may be connected by a cord, or wire and hook to a staple on the door jamb, as in Fig. 2. It will be seen that if the door is then opened the handle, H, will be lifted and give an alarm by the bell.



There appears to be nothing in this device liable to derangement or breaking. It is certainly simple enough to be durable. It was patented through the SCIENTIFIC AMERICAN Patent Agency, Nov. 20th, 1866 by D. L. Collins, or Elbridge Sims, Antwerp, N. Y., whom address for additional particulars.

THE WASTING OF COINS.

It is stated by an eminent English authority that the life of coins is much briefer now than before the introduction of steam for passenger travel. This is attributed to the almost constant attrition to which they are subjected by being carried about and the consequent passage of them from hand to hand. The authority we quote states that it takes on an average a hundred old shillings to make eighty new ones. This is a fearful waste, and as we expect some time to see gold and silver again a common medium of exchange in this country, it is of some importance to ascertain a remedy for the deterioration of coins. With copper and bronze coins it may be of no consequence, as they never bear intrinsically the value which they nominally possess, so that there is really no actual loss from wear. Gold and silver coins, however, are really worth their face or nominal value.

The method of manufacturing coins is opposed to their longevity. The plain disk is placed between the dies, as soft as the most perfect annealing can make it. When minted the recessed surface is hardened by compression, while the raised surfaces are left in a state very near that of their original softness. But these parts, unfortunately, are just those most exposed to attrition. The only remedy that suggests itself under these circumstances is a broad and projecting rim which, presenting less surface than the other figures, and being higher, would in a measure defend and protect them from rapid deterioration.

The Prussian Patent Law.

In our last number we discussed the defects of the Prussian patent system, and intimated that measures were in progress to improve it. We have since received a letter from the U.S. minister at Berlin, Hon. Jos. A. Wright, in answer to one we addressed to him on this subject in November last. He says the whole subject of patents in Prussia is practically under the direction of a Minister who changes and controls it from time to time as he sees fit. He also says that a gentleman is now preparing an act—or new law—for the "New North German Confederation" which will embrace all modern reforms such as will meet the requirements of the present time. Mr. Wright has given this subject considerable attention and deserves the thanks of his countrymen.

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