A. CUMMINGS.

Wood-Screw.

No. 161,390. Patented March 30, 1875.

Fig 1.

Fig 2.

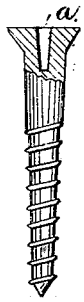


Fig 3.

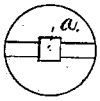


Fig 4.

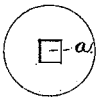
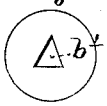


Fig 5.



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UNITED STATES PATENT OFFICE.

ALLAN CUMMINGS, OF NEW YORK, N. Y.

IMPROVEMENT IN WOOD-SCREWS.

Specification forming part of Letters Patent No. **161,390**, dated March 30, 1875; application filed February 15, 1875.

To all whom it may concern:

Be it known that I, ALLAN CUMMINGS, of the city, county, and State of New York, have invented an Improvement in Screws, of which the following is a specification:

The object of my invention is to provide a screw so constructed that it may readily be inserted and driven home by the screw-driver with great rapidity and safety, without any danger of injuring the slot or head of the screw by the slipping of the screw-driver. In order to accomplish this purpose I form in the center of the head of the screw a cavity of suitable shape and depth, into which a properly-shaped screw-driver is inserted; or I combine both the cavity and usual slot, and use an ordinary screw-driver, provided with a projecting spur to fit into the cavity.

In the drawings, which form a part of this specification, Figure 1 is an elevation, partially in section, of an ordinary wood-screw having a rounded head, and showing the application of my invention combined with the usual slot. Fig. 2 is an elevation, partially in section, of an ordinary screw, from the head of which the usual slot is omitted. Figs. 3 and 4 are plan views of the same, and Fig. 5 is a modification.

It is well known that the ordinary screw-head, provided with a slot, is very susceptible to injury, caused mainly by the slipping of the screw-driver from the slot when the screw is being "set home" in wood or metal. In very many cases the screws that are so injured are necessarily thrown away, not being in keeping with the finished work wherein they were inserted. It is to obviate this difficulty, and to render it absolutely impossible to damage the screw-head that I have made my present improvement. Large quantities of what are known as "capped screws" are used in finishing up the interior of cars, houses, and for similar purposes. The heads of these screws, either flat or rounded, are covered with a thin metallic plate, which is either silver or nickel plated. The cap being very thin, it requires the utmost nicety to use these screws without injuring the caps. By omitting the usual slot and using the proper-shaped cavity and screw-driver, perfect safety is insured to the metallic cap. The process of capping is also simplified by reason of the absence of the slot. Large quantities of soft-metal screws, in brass or composition, are much used, and the same difficulty is there met with to a greater extent. It is in the removing or withdrawing of screws that my invention proves its great utility. Screws that have been long embedded are very difficult to move by the use of an ordinary screw-driver, it invariably slipping from the slot, repeating the same until it is utterly impossible to start the screw or to obtain a hold in the slot. My invention completely eradicates this trouble, and the screw is readily withdrawn at the first trial.

In Figs. 1, 2, 3, and 4, *a* represents a cavity formed in the head of the ordinary screw of commerce. It is made of such depth and size as may in practice be found to be necessary to fully accomplish my purpose. It is made tapering, usually, from the top to its bottom, as shown. In Fig. 5, *b'* represents the cavity as made in the shape of a triangle.

The cavity may be formed in the screw-machine at the time the screw is made, by any of the well-known mechanical processes, this being no part of my invention, and requires no description here.

In Figs. 1, 3, and 6 I have shown the cavity *a* as it is used in combination with the usual slot. In Figs. 2, 4, and 5 I show the cavity only in the head, omitting the slot therefrom. This form is particularly adapted to the capped screws, and in this case the screw-driver is shaped accordingly.

Having fully described my invention, I claim as new and wish to secure by Letters Patent—

A screw the head of which is provided at its center with an angular cavity, as shown and described, and with the usual slot, as set forth.

ALLAN CUMMINGS.

In presence of—
A. L. MUNSON,
WM. S. SAMPSON.