(No Model.)

D. R. HART.

SCREW DRIVER.

No. 417,722. Patented Dec. 24, 1889.

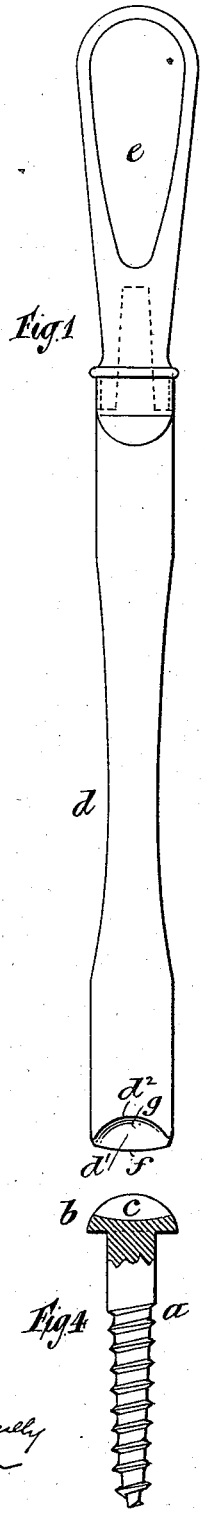

Fig. 1

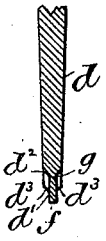

Fig. 2.

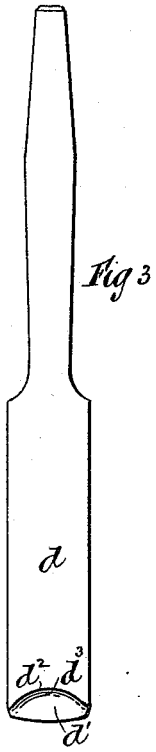

Fig. 3

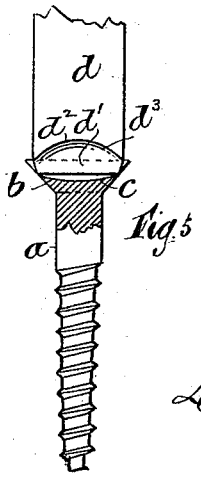

Fig. 5

Fig. 4

Witnesses
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DANIEL R. HART, OF NEW YORK, N. Y.

SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 417,722, dated December 24, 1889.

Application filed December 8, 1888. Serial No. 293,041. (No model.)

To all whom it may concern:

Be it known that I, DANIEL R. HART, of the city, county, and State of New York, have invented a new and useful Improvement in Screw-Drivers, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

The object of my invention is to provide a screw-driver adapted to enter and fit very closely the slots of screw-heads, and having its point so formed that its tendency to slip sidewise during the insertion of a screw is effectually prevented, and having the two side extremities of its point strengthened in such manner that danger of fracture thereof is avoided.

My invention is more particularly adapted for round-headed screws; but it may be used with other forms of screw-head.

In the drawings, Figure 1 represents a front view of a hand screw-driver constructed according to my invention. Fig. 2 is a longitudinal section of a portion of the same. Fig. 3 is a front view of a screw-driver bit adapted to be used in a bit-stock. Fig. 4 is a side view of an ordinary wood-screw, a portion being broken away to show the slot; and Fig. 5 is a side view of a portion of a screw-driver of modified construction and showing a wood-screw partially in section in conjunction therewith.

a designates an ordinary wood-screw, having a head portion *b*, provided with a slot *c* to receive the screw-driver, the bottom of which slot has the ordinary concave form.

d is a screw-driver provided with a handle *e*, having its point *f* made in convex form, so as to correspond with and fit upon the concave or arc-shaped bottom of the slot *c*. The sides of that portion *d'* of the screw-driver which engages with the slot are sunk in the sides of the blade and provided with concave shoulders d^2 in the rear thereof, and the portion *d'* may be made parallel or to taper slightly in thickness from the point *f*, having less thickness at the part *g* than at the point *f*. The concave shoulders d^2 extend rearwardly from the edges of the blade near its point toward the center of the portion *d'* and correspond approximately with the form of round-headed screws, and also have a rounded or cove-like junction d^3 with the said portion *d'*. These concave shoulders may extend entirely to the point at the side extremities thereof, if desired; but I preferably terminate them at a sufficient distance therefrom to allow of the insertion of the point in the slots of ordinary flat-head screws, and which I have illustrated in Fig. 5, and which also shows a screw-driver having a straight point to which my improvement is equally applicable.

It will be seen from the foregoing construction that the full thickness of the blade extends to within a short distance of its point, and that the side extremities of the sunk portion, and where the most strain occurs, tending to fracture the point, are thereby strengthened without interfering with its insertion in the slot. It will also be seen that by reason of the concave shoulders at the rear of the sunk portion no slipping of the screw-driver from the slot sidewise can occur when it is in use.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A screw-driver having a sunk portion at its point adapted in thickness to enter and fit the slots of screw-heads, the rear of said sunk portion having concave shoulders to correspond approximately with the form of round-headed screws, substantially as described.

2. A screw-driver having a sunk portion at its point adapted in thickness to enter and fit the slots of screw-heads, the rear of said sunk portion having concave shoulders and a rounded or cove-like junction with the said sunk portion, substantially as described.

3. A screw-driver having a sunk portion at its point convex in front and adapted in thickness to enter the slots of screw-heads, the rear of said sunk portion having concave shoulders, substantially as described.

4. A screw-driver having a sunk portion at its point, convex at its front end, and having concave shoulders at its rear, and the said sunk portion tapering in thickness, substantially as described.

DANIEL R. HART.

Witnesses:
PHILIP J. O'REILLY,
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