

(No Model.)

H. KNUEPPEL.
WOOD SCREW.

No. 402,333.

Patented Apr. 30, 1889.

Fig. 1.

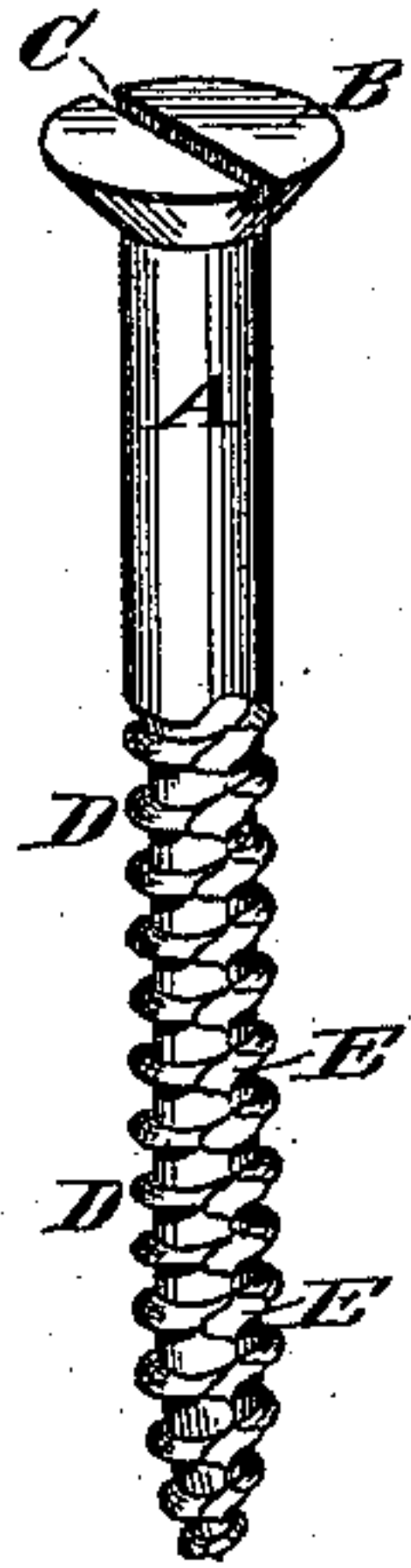


Fig. 2.

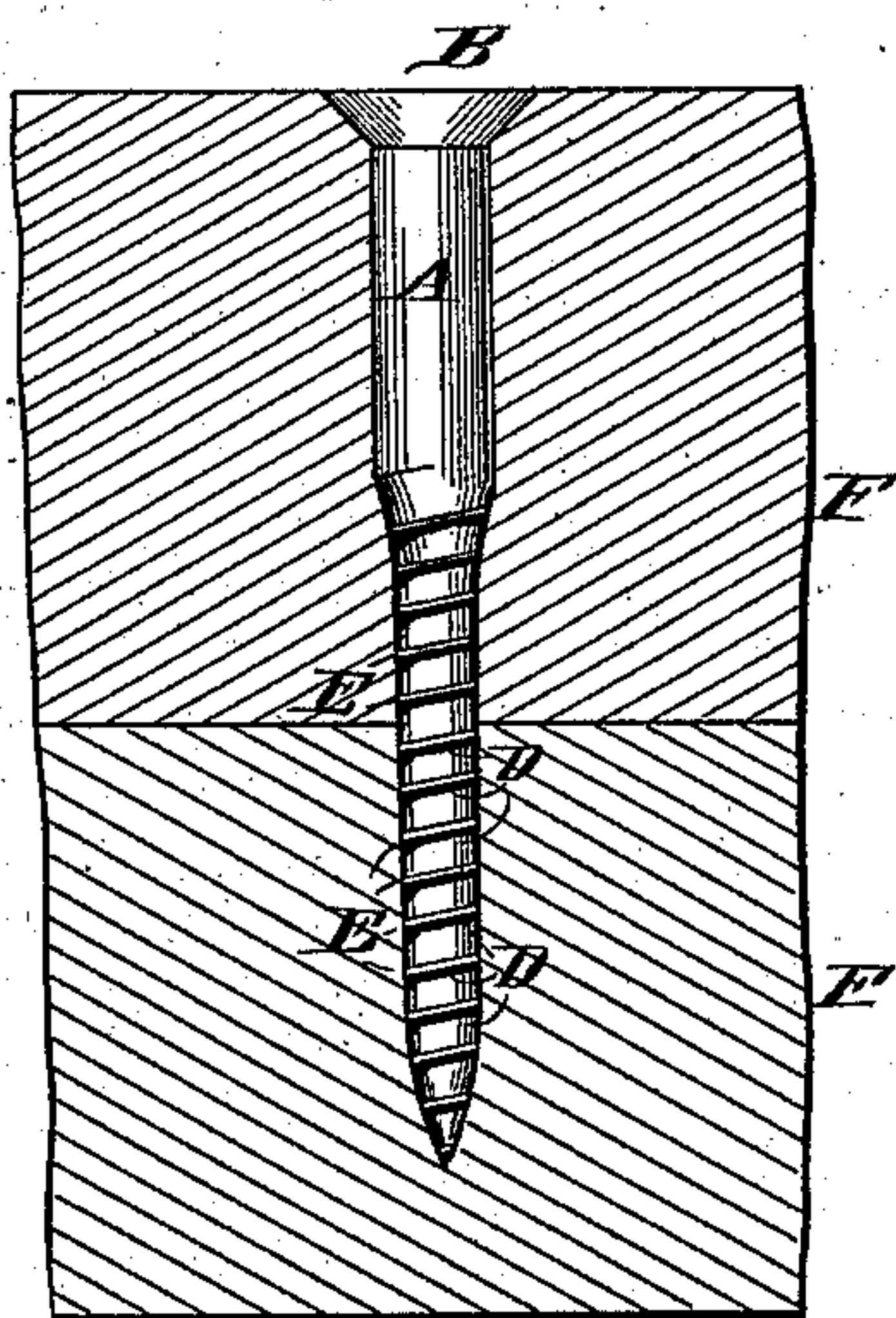
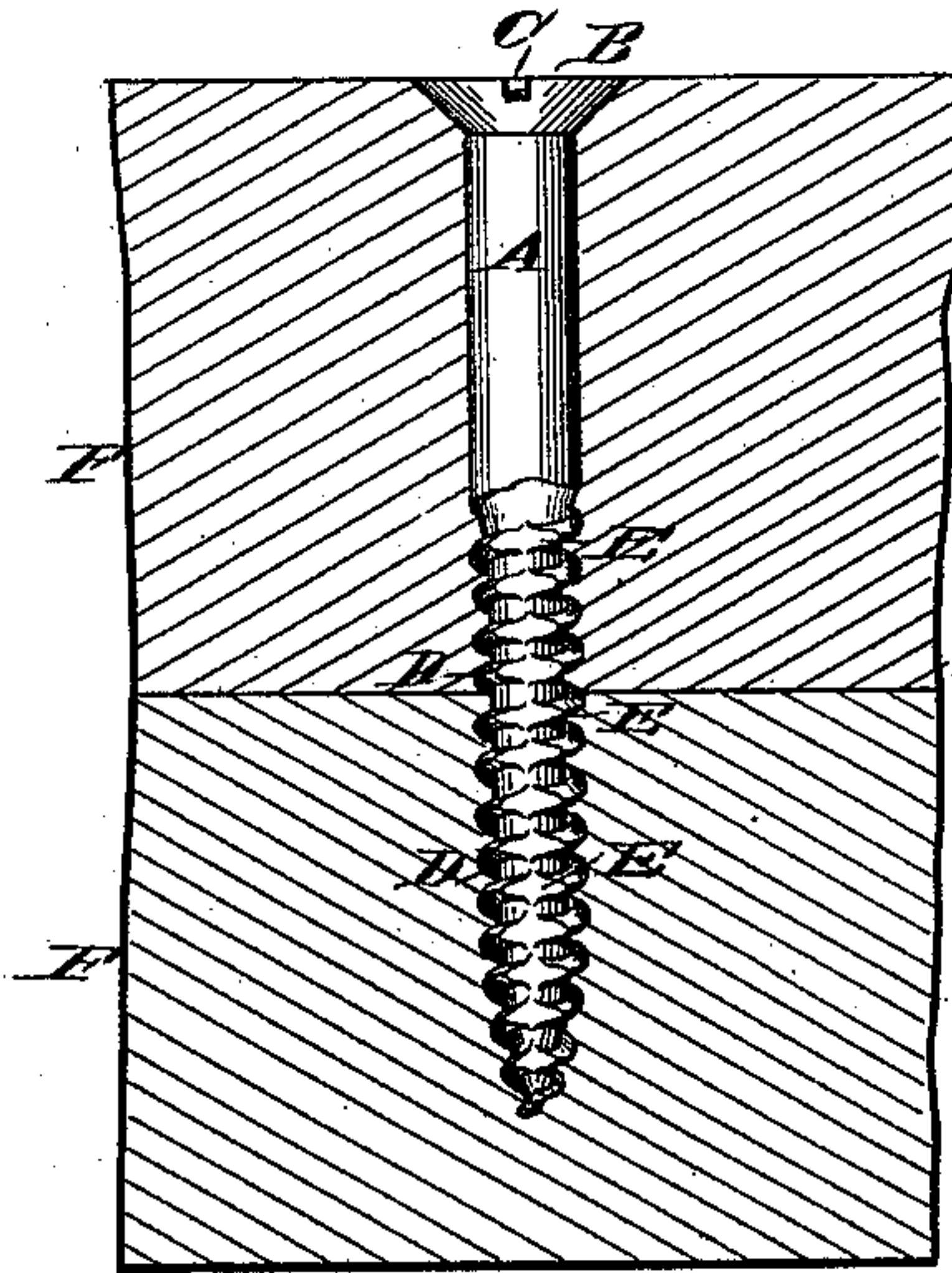


Fig. 3.



Attest:

Charles Pickles,
G. M. Hinchman Jr.,

Inventor:

Hearmen Knueppel

By Wm. H. H. H. H.
His atty.

UNITED STATES PATENT OFFICE.

HEARMEN KNUEPPEL, OF ST. LOUIS, MISSOURI.

WOOD-SCREW.

SPECIFICATION forming part of Letters Patent No. 402,333, dated April 30, 1889.

Application filed December 17, 1888. Serial No. 293,911. (No model.)

To all whom it may concern:

Be it known that I, HEARMEN KNUEPPEL, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented
5 a certain new and useful Wood-Screw, of which the following is a specification.

My invention relates to improvements in wood-screws in which two flat sides are formed; and the objects of my improvements
10 are, first, to provide a wood-screw that may be driven entirely to its head, and, second, to construct a wood-screw that may be easily and quickly set and hold more firmly than the varieties now in common use.

15 In order that others skilled in the art may make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, which form a part of this specification, and in which—

20 Figure 1 is a perspective view of my improved wood-screw. Fig. 2 is a view in section of the same, showing the screw driven home. Fig. 3 is a view in section of the screw, showing the same driven home and turned
25 ninety degrees.

Similar letters indicate similar parts throughout the several views.

30 A represents my improved wood-screw having a suitably ranged and winding screw-thread, D. The continuity is separated or broken by the parallel cut-away parts E. The flat head B is formed from the tapering
35 shoulder and provided with the slot C.

F represents wood parts secured together by the screw A.

40 It is well known that in setting ordinary wood-screws they are first driven in the wood nearly to the head and turned once or twice around to firmly secure them in the wood. If not driven, a hole is bored and the screw set therein. In either event the result is not as satisfactory as when my improved screw is used, for when the ordinary screw is driven
45 the parts contiguous to it, which are necessary to firmly hold the thread, are so bruised and crushed away from it that but slight tenacity is acquired, thus destroying its effect or

strength in a short time. Again, where a hole is bored in which to set the screw, the
50 wood thus removed would serve a better purpose if pressed more firmly by driving the screw, while the head of a medium or long screw is not strong enough to resist the pressure required to set it properly without boring
55 or driving it.

In driving the screw to its head the plain flat sides will press the wood back so firmly that by turning the screw ninety degrees the threads will assume a firm durable hold upon
60 the material entered.

When it is not desired to drive the screw its entire length, it may be properly set by turning with a screw-driver, as in the ordinary way, the threads being arranged to con-
65 tinuously draw downward.

It will be observed that my improved wood-screw is essentially a driving screw, and by thus applying it and giving it a quarter-turn much labor and expense is saved and a bet-
70 ter result attained.

By reference to Fig. 1 it will be seen that the slot at the top of the screw is at right angles with the parallel sides. This arrangement serves to indicate the position of the
75 threads when the screw is set. While my improved screw may be constructed as cheaply as the common varieties, a much better result is effected by its use.

I am aware that spikes and screws having
80 smooth or concave sides are not new; hence I do not claim this broadly; but,

85 Having thus described my invention, what I desire to claim and secure by Letters Patent of the United States is—

The herein-described wood-screw A, having the tapering shouldered flat head B, provided with a slot, C, at right angles with the flat parallel sides E, and having a threaded portion consisting of disconnected spiral threads
90 D, separated by the said parallel sides E, substantially as set forth.

HEARMEN KNUEPPEL.

Witnesses:

WM. H. OSMER,

JOHN A. GERBYT.