

(No Model.)

J. ERICSON.  
SCREW.

No. 429,851.

Patented June 10, 1890.

FIG. 1.

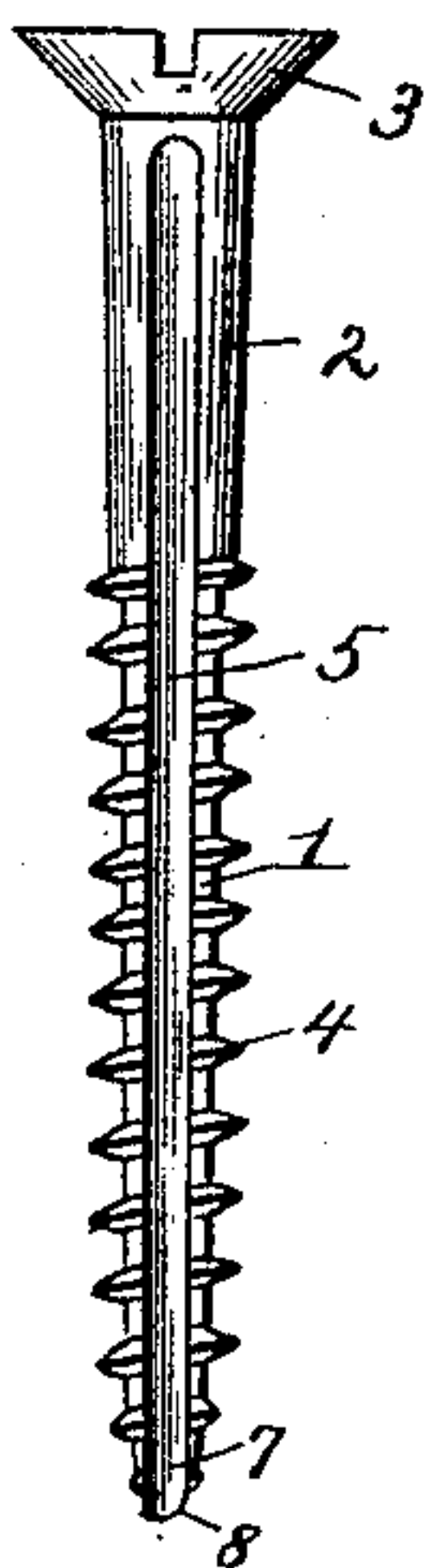


FIG. 2.

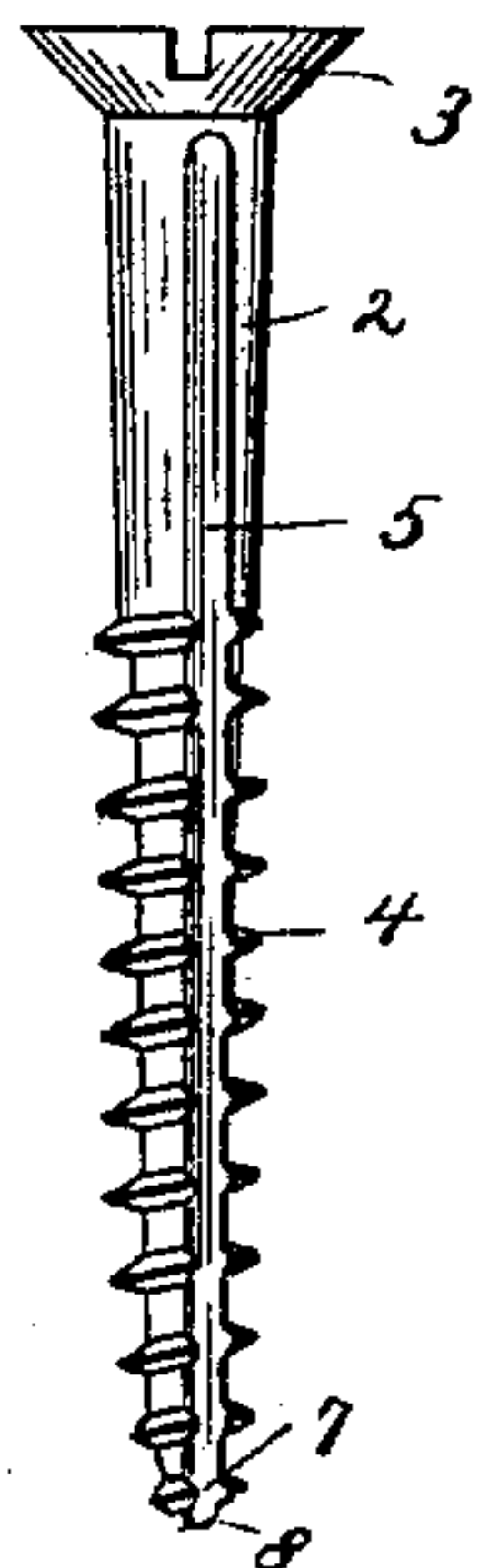


FIG. 3.

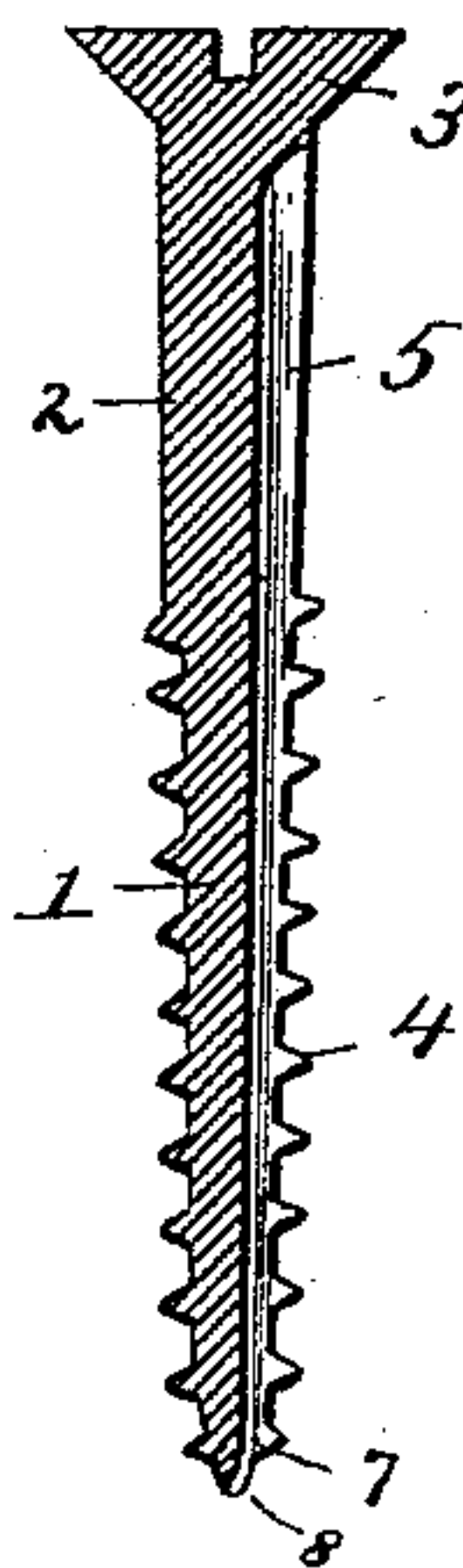


FIG. 4.

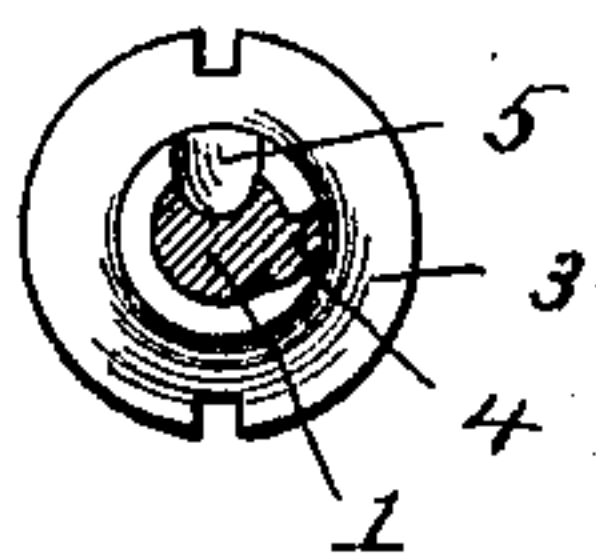


FIG. 5.



Witnesses:

Harry L. Amer.

W. S. Duwall

Inventor

John Ericson.

By his Attorneys

C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

JOHN ERICSON, OF SABINE PASS, TEXAS.

## SCREW.

SPECIFICATION forming part of Letters Patent No. 429,851, dated June 10, 1890.

Application filed February 19, 1890. Serial No. 340,981. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN ERICSON, a citizen of the United States, residing at Sabine Pass, in the county of Jefferson and State of Texas, have invented a new and useful Screw, of which the following is a specification.

This invention has relation to screws for use in wood-working; and among the objects in view are to provide a screw adapted to be inserted through thin sections of wood, and near the edges thereof, without liability of splitting the wood, and this without the necessity of any previous boring to form an opening or receptacle for the same. In other words, the main object of my invention is to provide a screw constructed and adapted to form the opening for its own reception.

With the above objects in view the invention consists in a screw having a straight shank and body of similar diameters throughout their combined length, and in providing the shank and body with a longitudinal straight groove or channel terminating at its lower end or at the terminal of the shank in what may be termed a "gouge-bit."

Referring to the drawings, Figure 1 is a side elevation of a screw constructed in accordance with my invention, looking toward the channel. Fig. 2 is a similar view looking at the screw at a point slightly to the right of the channel. Fig. 3 is a longitudinal section through the channel. Fig. 4 is a transverse section through the shank. Fig. 5 is a detail enlarged view of the end of the screw.

Like numerals of reference indicate like parts in all the figures of the drawings.

The screw comprises the usual shank, body, and head, designated by the numerals 1, 2, and 3, respectively. The head is of the ordinary construction, and the shank and body are of the same relative diameter throughout their combined lengths, the shank being provided with the usual threads 4.

Extending from the juncture of the head with the body of the screw to the entering-point of the shank is a channel 5, perfectly straight throughout its length and parallel to the longitudinal axis of the shank and body. The terminal of the shank were it not for this channel would be rounded and of a

semi-spherical shape; but by the channel a portion of the terminal is removed, leaving a sharp entering-point similar to an ordinary gouge bit or chisel, as shown at 7. The edges of the groove or channel are of course sharp and cut their way into the wood, thereby forming an entrance for the shank and body, the shavings being fed upward through the channel and discharged at the top of the hole. The edges are parallel to within a short distance of the extremity of the shank, where the right-hand edge is slightly reduced, so that the opposite or left-hand edge forms a cutting-shoulder 8, that moves in advance of the opposite shoulder and eats its way through the wood.

A screw constructed after the above description may be used in all kinds of wood-work, near edges and other points, and in various thicknesses without any liability whatever of splitting or injuring the material. By reason of the similarly-sized shank and stock no gradual expansion of the wood takes place, as in the "gimlet-shaped" screw; but the advanced end of the screw forms an opening of the same diameter of the stock and shank and an opening which is not enlarged by the farther insertion of the screw. Furthermore, the cutting takes place only a sufficient distance to accommodate the shank and body, the threads of the screw taking into the solid walls surrounding the orifice or opening and therefore forming a tight connection.

Having thus described my invention, what I claim is—

1. A screw the body and shank of which are provided with a longitudinally-disposed straight channel terminating at the point of the screw in a gouge-shaped bit, substantially as specified.

2. A screw the body and shank of which are provided with a longitudinal straight channel, terminating at the extremity of the shank in a gouge-shaped bit, substantially as specified.

3. A screw the body and shank of which are provided with a straight channel, terminating at the extremity of the shank in a gouge-shaped bit, one of the edges or walls of the



channel being cut away and leaving the opposite edge to form a cutting-shoulder, substantially as specified.

4. A screw the body and shank of which are  
5 of corresponding diameter throughout their length, the shank terminating in a rounded end, and the shank and body being provided with a longitudinal straight channel extending throughout their lengths, one of the ter-

minal shoulders of the channel being removed, 10 substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN ERICSON.

Witnesses:

JOHN JOHNSON,  
JNO. G. J. HARRIS.