

No. 610,423.

Patented Sept. 6, 1898.

J. VAN OMMEREN.
SCREW.

(Application filed Jan. 26, 1898.)

(No Model.)

Fig. 1.

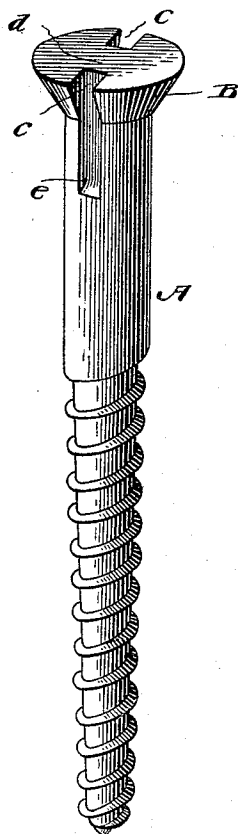


Fig. 2.

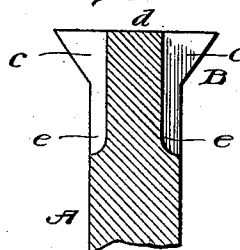


Fig. 3.

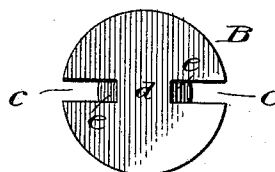
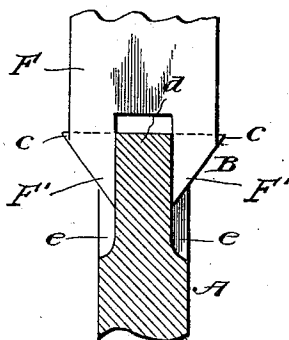


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN VAN OMMEREN, OF EVANSTON, ILLINOIS.

SCREW.

SPECIFICATION forming part of Letters Patent No. 610,423, dated September 6, 1898.

Application filed January 26, 1898. Serial No. 668,033. (No model.)

To all whom it may concern:

Be it known that I, JOHN VAN OMMEREN, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Screws; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in wood and other screws; and it consists, essentially, in a screw comprising a head and a shank, the former having vertical slots on opposite sides of its center, with a solid central portion therebetween forming a continuation of the shank, and having straight vertical walls, said slots serving to receive the oppositely-disposed wings of a bifurcated screw-driver blade or bit and the latter provided with vertical grooves arranged in line with said slots and forming continuations thereof, whereby certain desirable advantages are attained, as will appear more fully hereinafter.

The invention has for its object to provide a screw for general use which is adapted to be firmly engaged by the screw-driver and the latter prevented from slipping therefrom and in which the power is applied thereto at such a point as to greatly facilitate the driving thereof; also, to so construct the screw that no pressure is required to hold the driver in place, thereby enabling the operator to drive it perfectly straight, said screw also being capable of ready and easy removal, even in the event of its head being broken or twisted off, and possessing many other advantages over the screw now in general use.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is a perspective view of a screw constructed in accordance with my invention. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a top plan view; and Fig. 4 is a view similar to Fig. 2, showing the screw-driver in position.

Referring now more particularly to the drawings, wherein like letters of reference designate corresponding parts throughout the several views, A represents the shank, and B the head, of the screw, the latter being slotted vertically on opposite sides of its center, as

at c, leaving a solid central portion d, forming a continuation of the shank and terminating at its outer end flush with the face of the head. The slots extend completely through the head, and the walls thereof are straight and vertical, as clearly shown in Figs. 2 and 4. The shank is provided at its upper end and on opposite sides thereof with vertical grooves e, which are in line with and form continuations of the vertical slots c. These grooves may be of various lengths and depths, according to the size of the screw, and are designed to serve several functions, as will appear fully hereinafter.

As illustrated in Fig. 4, the blade or bit F of the screw-driver to be used in connection with my improved screw is slotted or bifurcated at its engaging end to form wings F', which are inserted into the vertical slots in the head, so as to bear against the side walls thereof in rotating the screw. It is desirable to so construct the screw and screw-driver that the latter may be used on screws of different sizes, and to this end the grooves e in practice are preferably made of different lengths and depths proportionately to the size of the screw, so that the central portion d of the screw-head will be of the same width in all sizes of screws, thereby enabling the screw-driver to snugly fit each one and obviate the necessity of employing a different screw-driver for each grade of screw. The grooves in addition to serving this useful function permit of the screw being readily and conveniently extracted in the event of the head being partly or entirely twisted off or broken, as the driver may then be forced farther down into the grooves to bear against the walls thereof. It is also sometimes desirable to drive screws in such a manner that they cannot be removed, as when putting locks or fastenings on sheds or outhouses or bars on cellar or basement windows where the bars are held together by iron straps or bands. With my improved screw grooved in the shank this may be conveniently and effectually accomplished after the screw has been driven by driving keys or wedges in the slots c. These keys or wedges when forced down into the grooves are bent outwardly by the shoulders formed by the base walls thereof to form stops which bear against the under

side of the lock or bar and hold the screw firmly against rotation and extraction.

In my improved construction of screw the screw-driver engages the screw more firmly and securely, and hence does not slip, as in the common form of screw, and the power being applied on opposite sides of the center of the screw-head the screw is easily rotated, and thus readily driven into an object. No pressure is required to hold the screw-driver in engagement with the screw, and consequently the latter may be driven perfectly straight without difficulty. It will also be understood that the sharp edges of the vertical slots in coming in contact with the wood in which the screw is driven will assist in the embedding of the head, thus rendering it unnecessary to form a countersink for said head. With the old construction of screw great difficulty is experienced in extracting screws from old material where they have become rusted or are covered with paint and putty; but with my improved construction this difficulty is entirely overcome, as the screw-driver

at once takes a firm bearing against the walls of the slots. 25

It will of course be understood that the invention is not limited to any particular kind of screw, but may be applied to any type of screw now in use. 30

Having thus fully described the invention, what is claimed as new and useful, and desired to be secured by Letters Patent, is—

A screw comprising a head and a shank, the former having vertical slots on opposite sides of its center with a solid central portion between said slots forming a continuation of the shank and having straight vertical walls, and the latter provided with vertical grooves arranged in line with said slots and forming continuations thereof, substantially as described. 35 40

In testimony whereof I affix my signature in presence of two witnesses.

JOHN VAN OMMEREN.

Witnesses:

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