## M. D. CONVERSE. SAW HANDLE.

(Application filed June 16, 1902.)

(No Model.) WITNESSES: INVENTOR

## United States Patent Office.

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## SAW-HANDLE.

SPECIFICATION forming part of Letters Patent No. 716,521, dated December 23, 1902.

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To all whom it may concern:

Be it known that I, MASCHIL D. CONVERSE, a citizen of the United States, residing in the city of New York, borough of Manhattan, 5 county and State of New York, have invented certain new and useful Improvements in Saw-Handles, of which the following is a specification.

My invention relates more particularly to 10 compass-saw handles; and it consists of certain novel forms and arrangements of parts and combinations of the same, and has for its objects insurance of facility, certainty and reliability of adjustment in use, and reduction 15 of cost of manufacture, all of which will be hereinafter more fully shown in detail and distinctly pointed out in the claims.

In the drawings, Figure 1 is a side elevation; Fig. 2, a reverse side elevation showing in part 20 the form and construction of my improved handle with a saw-blade secured in place therein. Fig. 3 is a side elevation showing my improved handle with the saw-blade and securing mechanism removed. Fig. 4 is an 25 edge view of my improved handle with saw secured therein, further showing the external shape of the former. Fig. 5 is a view of the tapered cylindrical key-pin removed from the transverse hole h in the handle. Fig. 6 is a 30 cross-section on line 66; and Fig. 7 is a crosssection on line 77 of Fig. 1, all which will further be described in detail.

Like letters indicate corresponding parts throughout the several figures.

A is the handle, which is preferably of linklike form, being open longitudinally of its center portion, which opening is encroached upon by inwardly-projected overhanging portions or flanges  $\alpha$  and  $\alpha'$ , respectively, on 40 either side laterally and to form a semibox or housing space for insertion of the saw-

blade B. (See specially Fig. 7.)

The handle has at its front end an interiorly-flattened portion b, level with the part 45 a, to form a firm bed or wall, against which the saw-blade is keyed, and at either side of this flattened surface rise flanges c c, which are externally somewhat enlarged beyond the longitudinal plane of the handle and pref-50 erably rounded on the outer margins to correspond with the preferred rounded exterior |

of the handle. Through these flanges transversely of the handle, crossing the middle and slightly above the flattened surface B, a hole h is bored diagonally, (see Fig. 6,) and into it 55 a cylindrical pin d, slidably fitted, having one side tapered, as at e in Figs. 5 and 6, is inserted and afterward may be secured against dropping out by slightly turning the margins

of its ends to form heads ff'.

The operation of my improved saw-handle when constructed as shown is as follows: The key-pin d is tapped against any solid body on the head f, driving it back, so that the taper e thereof recedes from the flat sur- 65 face b, leaving space enough between for the saw-blade B to be entered and pushed back into the handle as far as desired. Then the opposite end or head f' is tapped against some solid body, causing the pin to wedge the 70 saw-blade firmly against the flattened surface b and hold it securely. This freeing or gripping of the saw-blade by means of this device is accomplished instantaneously at will.

As is well known to mechanics and others, it is sometimes desirable to shorten the extension of the saw-blade. Therefore, as will be seen, the blade may be inserted to a greater or less distance into the handle, as shown by 80 dotted lines g, and secured instantly and firmly. It is also frequently desirable to reverse the saw-blade, putting the pointed end backward into the handle and securing it there, so that the tool may be safely carried 85 in the pocket. This my invention provides for equally well, as will readily be understood.

A particular feature of my invention lies in a construction to cheapen cost of manufacture, and I will now define it.

Handles have been made with webs or alternate webs in offset planes crosswise connecting the lateral edges; but molds for casting such cannot be expeditiously and accurately prepared, for the reason that the 95 crosswise-connected webs interfere with rapid and accurate formation of the "parting" line or level of the sand. Furthermore, after the casts are made the handles are found to have rough finny edges upon the interior iso margins of the cross-webs that are also generally too hard to permit of ready finishing—

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a result due to the difficulty just above mentioned. In order, therefore, that the handle may be advantageously made in cast metal, particularly of cast-iron, while I also have found it important to dispense with coring it is also necessary to overcome the above difficulties. This I accomplish by means of the longitudinal inwardly - projected overhanging margins a and a', which, respectively, are disconnected from one side of the handle

are disconnected from one side of the handle entirely and, being situated in independent planes laterally of the plane of the space to be occupied by the saw-blade, leave the latter opening longitudinally the interior of the

handle without the use of a cored pattern and sufficiently well dimensioned also not to require any finishing or fitting afterward. This construction, as will be seen by those skilled in the art, enables the molder with a

skilled in the art, enables the molder with a single sweep of a tool or of his thumb or finger to form the parting-level of the sand of the mold on the interior of the pattern on the exact proper line throughout the length thereof, and it will be clearly understood by those

25 skilled in the art that the labor and expense of fitting the key-pin to properly operate are very slight indeed.

I do not limit myself to the use of the particular means herein described for securing the saw-blade in connection with the other described improvements in the handle, as mani-

festly the latter might be used to advantage in connection with other fastening devices, nor do I limit myself to the particular form of handle herein described in connection with 35 the described improvements in saw-securing mechanisms, as the latter also might be advantageously employed in other forms of saw-handles; but,

Having described my invention, what I do 40 claim as new, and desire to secure by Letters

Patent, is—

1. In a saw-handle of the class described, inwardly-projected parts or flanges respectively overhanging in independent planes 45 laterally of the space for the saw-blade, a flattened bed at the forward end, and a saw-blade resting thereon, in combination with a tapered key-pin diagonally and slidably fitted transversely of the handle opposite said bed. 50

2. In a saw-handle of the class described, a handle provided with a space for a saw-blade and provided with a bed for binding a saw-blade against, and saw-blade resting on said bed, in combination with a tapered key- 55 pin diagonally and slidably fitted transversely of the handle opposite said bed.

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Witnesses:

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