

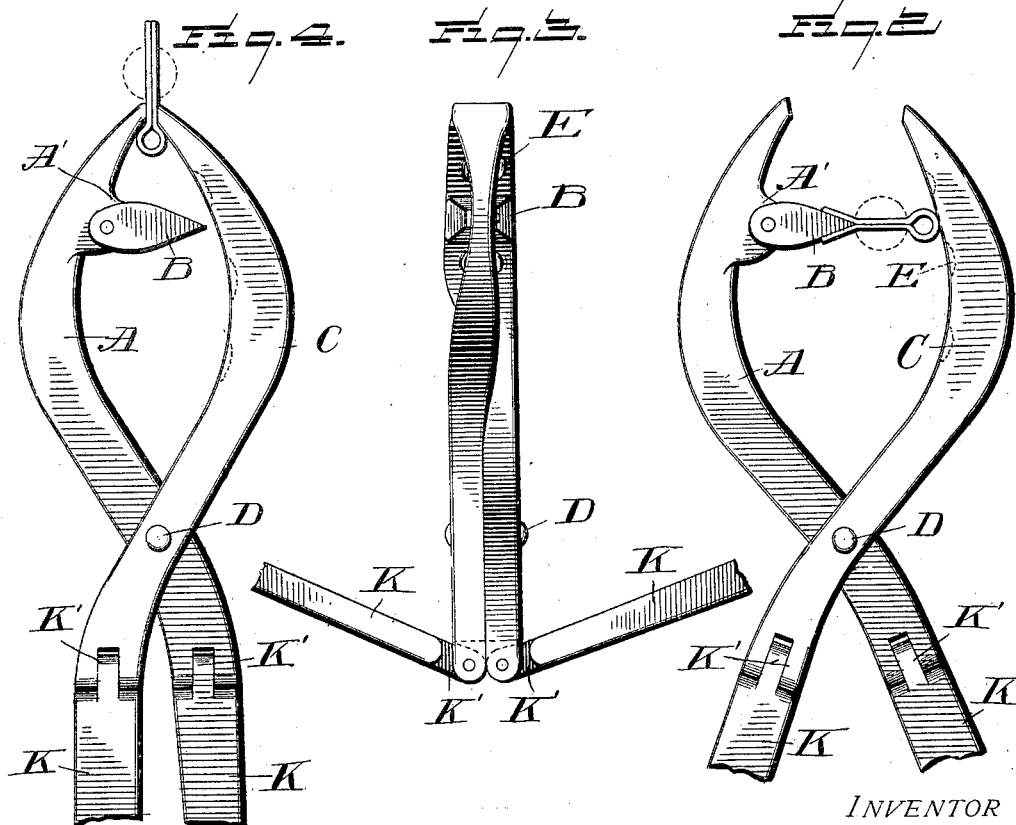
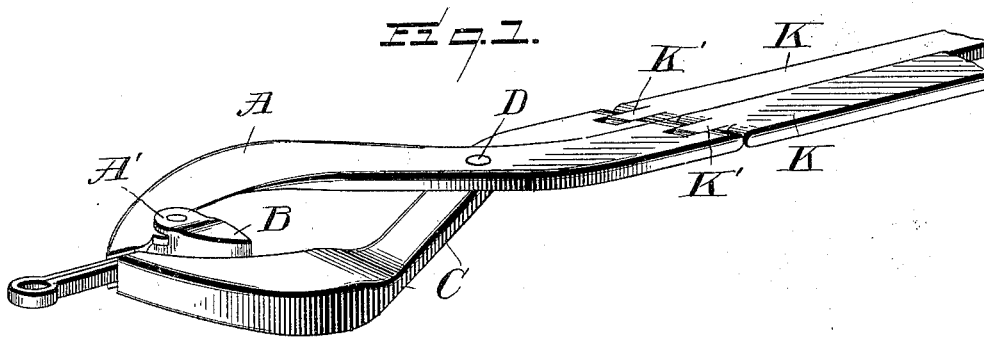
No. 649,334.

Patented May 8, 1900.

I. P. MELOOS.  
KEY WRENCH.

(Application filed Jan. 30, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

IVER P. MELOOS, OF STONY BROOK, MINNESOTA.

## KEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 649,334, dated May 8, 1900.

Application filed January 30, 1900. Serial No. 3,336. (No model.)

*To all whom it may concern:*

Be it known that I, IVER P. MELOOS, a citizen of the United States, residing at Stony Brook, in the county of Grant and State of Minnesota, have invented certain new and useful Improvements in Key-Wrenches; 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 new and useful improvements in tools adapted for use in inserting keys in apertures in shafts and also for opening or spreading the ends of the key after the same has been placed in its locking relation.

Another feature resides in the provision of means whereby the split ends of the key may be held together and removed from the aperture in the shaft or other iron in which the key may be held.

The invention relates, further, to the provision of means whereby the clamping ends of the tool may be held at an angle to the handles, whereby the tool may be utilized to advantage in reaching keys that may be behind other rods or inaccessible when the handles are held in alinement with the pivotal members.

More specifically, the present invention consists in the pivoting together of two jaws, to one of which is pivoted a wedge-shaped member, while the opposite jaw on its inner face is provided with a series of recesses in which the end of the key may be held while its bifurcated end is adapted to be engaged by the wedge-shaped member after the key has been inserted through the aperture of the shaft for the purpose of spreading the ends of the key to retain the same in a locked relation. The clamping ends of the tool are to be utilized for the purpose of pressing the spring ends of the key together, so that the key may be easily withdrawn from the aperture, while the handles are hinged to the jaws to adapt the invention for use in reaching and inserting the key in a shaft, which key would be inaccessible if the handles were integral with and in alinement with the jaws.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of my improved tool for inserting and removing keys in shafts. Fig. 2 is a side elevation of my tool, showing its application to the key to spread the spring ends of the same to lock the key in place. Fig. 3 is an edge view showing the hinged handles of the tool bent at an angle. Fig. 4 is a side view showing the tool in position for inserting the key.

Reference now being had to the details of the drawings by letter, A designates one of the jaws of my tool, which has a lug A', to which is pivoted the wedge-shaped member B. The second of the two jaws C is pivoted, as at D, to the jaw A, and on its inner face are several depressions or recesses E, in which the head of the key is adapted to engage when the wedge-shaped member is being utilized to spread or open the spring ends of the key to hold the latter in a locked relation.

To the jaws A and C are hinged the handles K, each of which has a contracted end K', which is pivoted in a recess in the hinged end of the jaw, thus allowing said handles to swing on their pivots, but not laterally. It frequently happens that with the handles integral and in alinement with the jaws keys cannot be conveniently reached, as said keys may be made inaccessible by reason of other rods or obstructions being in the way. It is to adapt the tool for use in such contingencies that I hinge the handles in the manner shown and described.

The operation of the device will be readily understood. The end of the key may be gripped by the jaws of the tool and the key inserted in the aperture of the shaft. After the key has been inserted in place the head of the key is to be placed in one of the recesses in the jaw C and the wedge-shaped member B is placed between the spring ends of the key, as illustrated, and the ends are bent outward, thus locking the key in place. When it is desired to remove the key, the

clamping ends of the tool may be utilized to spring the ends of the key together, after which the key may be easily removed.

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

1. A key-wrench, comprising two jaws pivoted together, one of said jaws having pivoted thereto a wedge-shaped member, adapted to coöperate with one of the jaws in spreading or separating the ends of the key when inserted in a shaft.

2. A key-wrench consisting of two jaws pivoted together, a wedge-shaped member pivoted to a lug on one of said jaws, the second

jaw having recesses or depressions on its inner face opposite said wedge-shaped member, as set forth.

3. A wrench for inserting and removing keys, consisting of two jaws pivoted together, one of said jaws having a wedge-shaped member pivoted thereto, and hinged handles pivoted to said jaws, as shown and described.

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

IVER P. MELOOS.

Witnesses:

TEDER GULBRANSON,  
M. P. MELOOS.