T. J. FEGLEY.

DETACHABLE BLADE SCREW DRIVER.

APPLICATION FILED AUG. 3, 1907.

902,387. Patented Oct. 27, 1908.

Fig. 1.

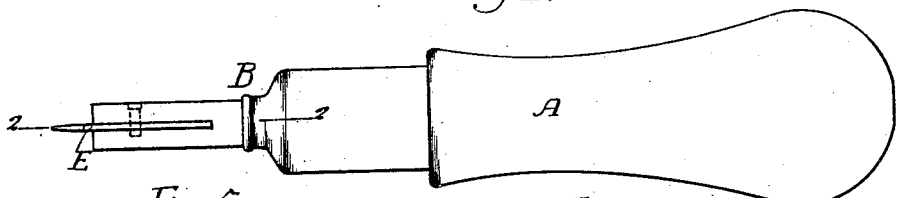


Fig. 5.

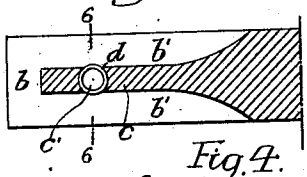


Fig. 2.

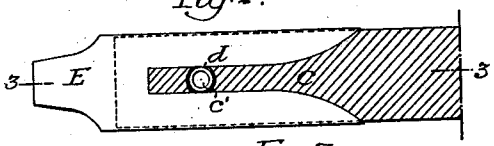


Fig. 4.

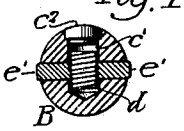


Fig. 3.

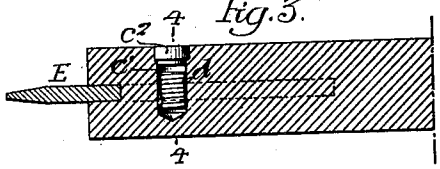


Fig. 6.

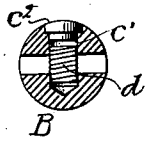


Fig. 7.

Fig. 8.

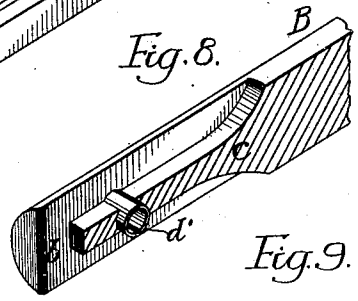
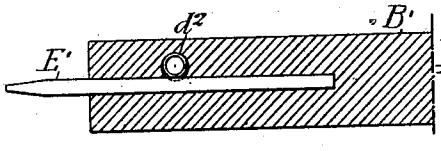


Fig. 9.



Witnesses:-
Walter F. Pellinger
Lotus H. Lowe.

Inventor
Thomas J. Fegley
by his Attorneys.
Howson & Howson

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS J. FEGLEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO NORTH BRO'S M'F'G CO., OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

DETACHABLE-BLADE SCREW-DRIVER.

No. 902,387. Specification of Letters Patent. Patented Oct. 27, 1908.

Application filed August 3, 1907. Serial No. 386,908.

To all whom it may concern:

Be it known that I, THOMAS J. FEGLEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Detachable-Blade Screw-Drivers, of which the following is a specification.

The object of my invention is to provide a simple means for effectually retaining the detachable blade to the shank of a screw driver or other tool. This object I attain in the following manner, reference being had to the accompanying drawing, in which:—

Figure 1, is a side view of a screw driver illustrating my invention; Fig. 2, is an enlarged sectional view on the line 2—2, Fig. 1; Fig. 3, is a sectional view on the line 3—3, Fig. 2; Fig. 4, is a sectional view on the line 4—4, Fig. 3; Fig. 5, is a similar view to Fig. 2, with the detachable blade removed; Fig. 6, is a sectional view on the line 6—6, Fig. 5; Fig. 7, is a detached sectional perspective view illustrating my invention; and Figs. 8 and 9 are views of modifications of my invention.

A is the handle of a screw driver having a shank B provided with a transverse slot *b* and longitudinal slots *b'*, *b'* at each side of a central web *c*, Fig. 5.

c' is a cavity in the web and mounted in this cavity is a coiled spring *d;* the spring is of such a diameter that it will extend slightly beyond the side walls of the web, as clearly illustrated in Figs. 5 and 7.

E is a detachable blade, being slotted at *e* to form a fork in the present instance. When the blade is placed in position the forked portions of the blade pass into the slots *b'* on each side of the web *c* and as they are spaced apart to fit snugly over the web they will laterally compress the spring *d*, as clearly shown in Fig. 2, consequently the spring will tend to bind against the forks of the blade and hold the blade by friction so that it will not accidentally drop out; the pressure being such, however, as to not interfere with the ready removal when it is desired to detach one blade and insert another.

It will be noticed, in referring to Figs. 3 and 4, that the cavity *c'* in the shank B is of a greater length than the length of the spring *d*, this allows for the elongation of the spring when lateral pressure is applied. The spring is held in the cavity by a plug c^2 driven in position and secured by any suitable means.

I preferably serrate the edges *e'* of the blade so as to provide a roughened surface in order that the blade can be grasped when it is desired to withdraw it from the shank.

While I prefer to use the coiled spring shown in the main figures of the drawing, a spring as at *d'*, Fig. 8, may be used made of flat spring metal bent in the form of a cylinder, the edges being spaced apart so as to allow the spring to contract when the blade is forced into position.

In Fig. 9, I have shown a slotted shank B' with a plain blade E'; the cavity for the spring is at one side of the slot so that the spring extends into the slot and will press upon the flat surface of the blade.

A screw driver of this type is especially designed to accommodate blades of different width, and these blades are in many cases carried in a cavity in the handle or in a separate tool holder, but it will be understood that my invention may be used to secure other edge blades or bits to shanks without departing from the essential feature.

I claim as my invention:—

1. The combination of a slotted shank having a cavity opening into its slot, a coiled spring mounted in said cavity, and a slotted blade entering said slot of the shank and engaging a portion of the side of said spring so as to be frictionally held in position thereby.

2. The combination of a shank slotted at each side leaving a central web, a forked blade adapted to the slots in the shank, and friction means mounted in the web between the slots and engaging the opposite edges of the forked portion of the blade.

3. The combination of a shank slotted at each side and at the end forming a central web, a transverse cavity extending through the web, a spring mounted in the cavity and extending beyond the walls of the web, a forked blade adapted to the slots in the shank, the space between the forks of the blade being narrower than the diameter of the spring so that when the blade is forced into the slots of the shank the spring will be compressed and will frictionally retain the blade in the shank, substantially as described.

4. The combination of a shank slotted at each side and at the end forming a central web, a transverse cavity extending through the web, a coiled spring mounted in the cavity and free to elongate, the spring extending

beyond the walls of the web, with a forked blade, the forks of the blade adapted to the side slots, the distance between the forks being less than the diameter of the spring so that when the blade is forced into the slots of the shank it will compress the spring, the spring retaining the blade in position, substantially as described.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

THOMAS J. FEGLEY.

Witnesses:
DAVID LUTZ,
WM. A. BARR.