

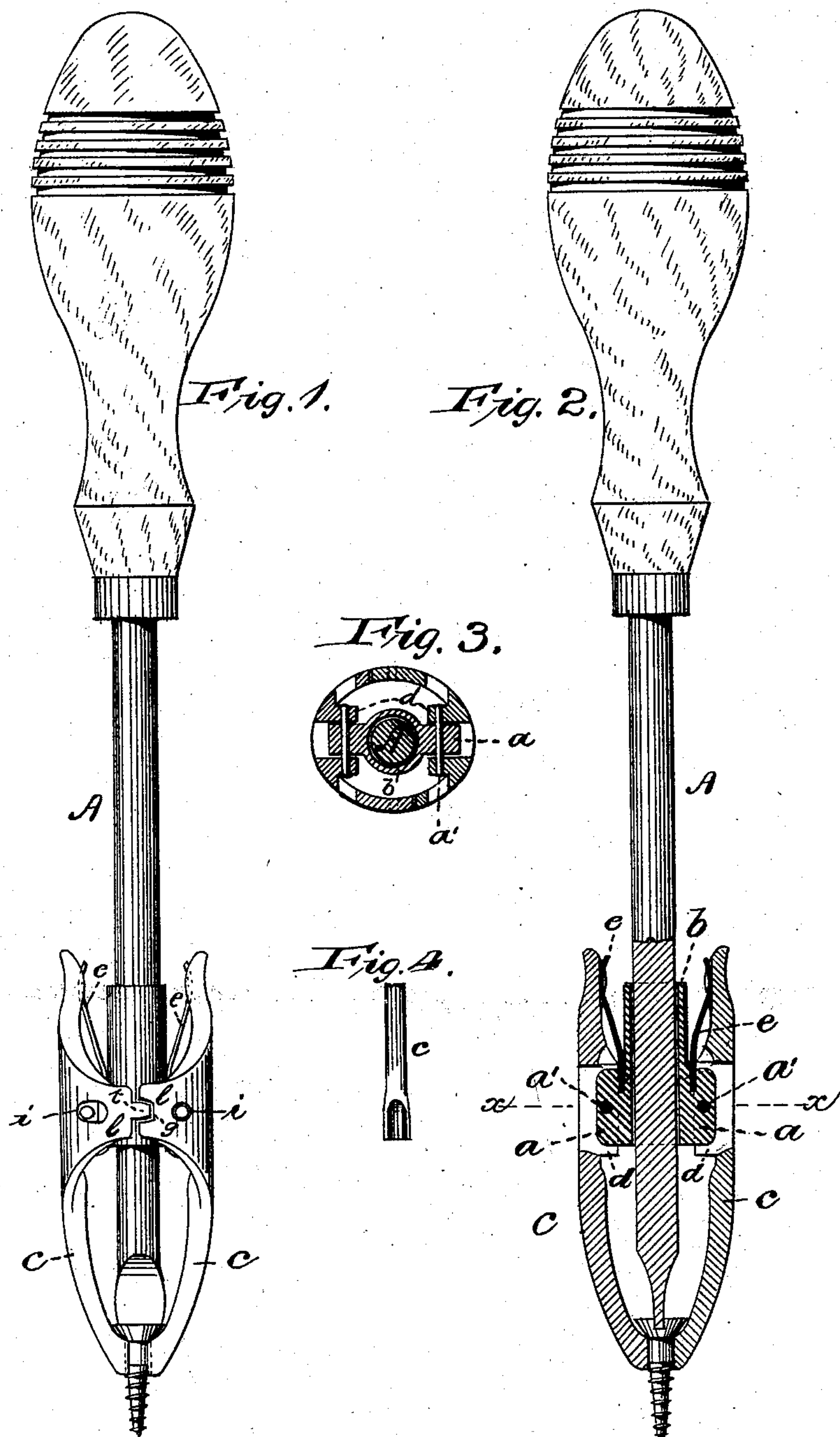
(No Model.)

A. D. WALLEN.

SCREW DRIVER.

No. 302,067.

Patented July 15, 1884.



Attest:

T. F. Campbell.
Edward S. Kempf.

Inventor:

Alfred D. Wallen,
by Drake & Co. Attys.

UNITED STATES PATENT OFFICE.

ALFRED D. WALLEN, OF MENDHAM, NEW JERSEY.

SCREW-DRIVER.

SPECIFICATION forming part of Letters Patent No. 302,067, dated July 15, 1884.

Application filed December 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALFRED D. WALLEN, a citizen of the United States, residing at Mendham, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Screw-Drivers; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to facilitate the manipulation and operation of a screw-driver when driving a screw; and it consists, chiefly, in the structural arrangement and combination of parts hereinafter set forth, and finally embodied in the claims.

In the drawings, Figures 1 and 2 are elevations of a screw-driver embodying my improvement, the latter figure being partially in section, to show more clearly the construction and arrangement of the parts. Fig. 3 is a section taken through line *x* of Fig. 2, and Fig. 4 is a detail view, similar letters of reference indicating corresponding parts in each of the several figures.

In carrying out my invention, the shank *A* of the driver is made round, and carries a sleeve, *b*, in which said driver is adapted to work freely when driving a screw. Said sleeve is provided with lugs *a*, to which are pivoted, at *a'*, jaws *c*, the latter having lugs *d* swaged or cast thereon for the purpose, as shown in Figs. 2 and 3. Secured to the handles of said jaws are flat springs *e*, the free ends of which pass between the lips *l* and into grooves at the base of the lugs *a*, as clearly shown in Fig. 2, which serve to prevent any lateral movement or accidental displacement of said springs, as will be manifest. The normal tendency of said springs is to press the ends of the jaws *c*, which engage with the screw, together, thereby enabling them to grasp a screw and hold the same firmly in position, as will be readily understood by reference to Figs. 1 and 2. Said jaws *c* are provided with curved lips *l* at each side, which engage with each other by tongues *t* and grooves *g*, as clearly shown in Fig. 1, which serve to hold

said jaws steadily in their relative positions, and to prevent a screw from being thrown out of line by an unequal pressure thereon by the jaws, which might result were the springs not of equal stiffness, as will be obvious. The lips *l* are provided with apertures *i*, Fig. 1, to facilitate the insertion of the rivets which hold the jaws *c* into connection with the sleeve *b*, and which also serve as the pivots on which said jaws work.

The mode of operating the tool will be readily understood by reference to the drawings without further description.

I am aware that it is not new, broadly considered, to provide a screw-driver with a sleeve having spring-actuated clamping-jaws pivoted thereto, as such devices have been heretofore patented; but not to my knowledge have the springs in such cases been secured to the handles with their free ends extending between lugs, which prevent them from accidental displacement; nor have the clamping-jaws been provided with lips which engage with each other by means of tongues and grooves to neutralize the effect of springs, which might exert an unequal pressure upon a screw, as herein shown and described.

Having thus described my invention, what I claim, and wish to have secured by Letters Patent, is—

1. The combination, with a screw-driver, of a sleeve having lugs *a*, jaws having lips *l* and lugs *d*, the latter being pivoted to said lugs *a*, and the springs *e*, secured to the handles of said jaws and extending between said lugs *d*, all arranged and operating for the purposes set forth.

2. The combination of the sleeve having lugs *a*, the jaws having lugs *d* and perforated lips *l*, engaging with each other by means of tongues and grooves, as shown, and the springs *e*, secured to the handles of said jaws and pressing upon said sleeve, the several parts being arranged and operating as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of November, 1883.

ALFRED D. WALLEN.

Witnesses:

CHARLES H. PELL,
F. F. CAMPBELL.