

903,549.

Patented Nov. 10, 1908.

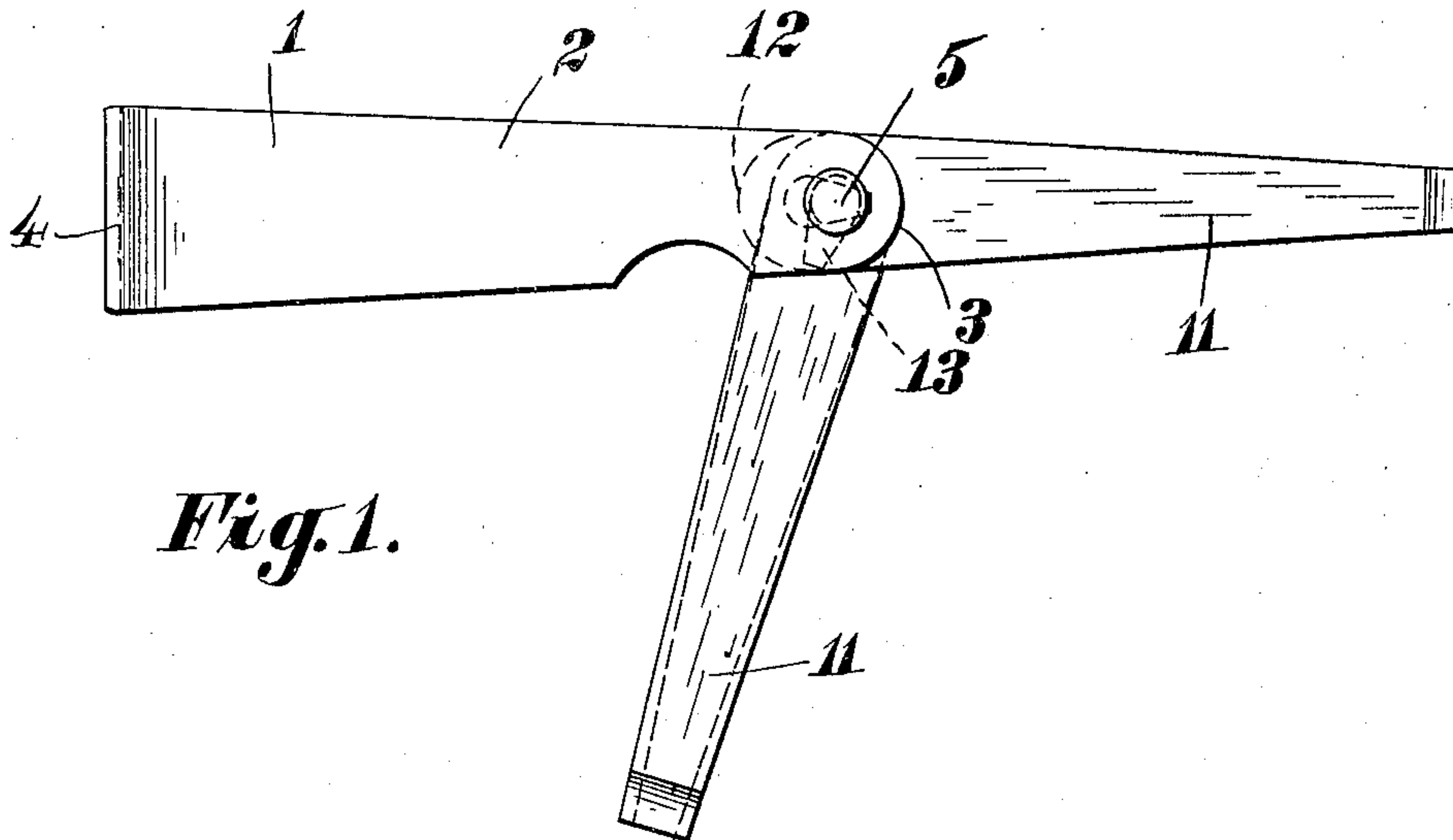


Fig. 1.

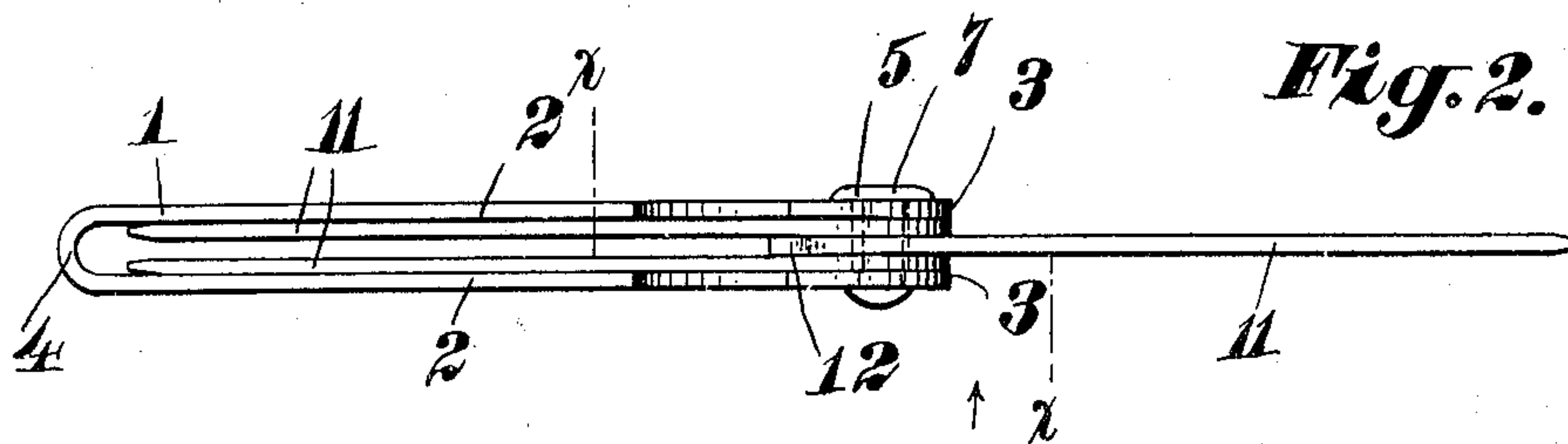


Fig. 2.

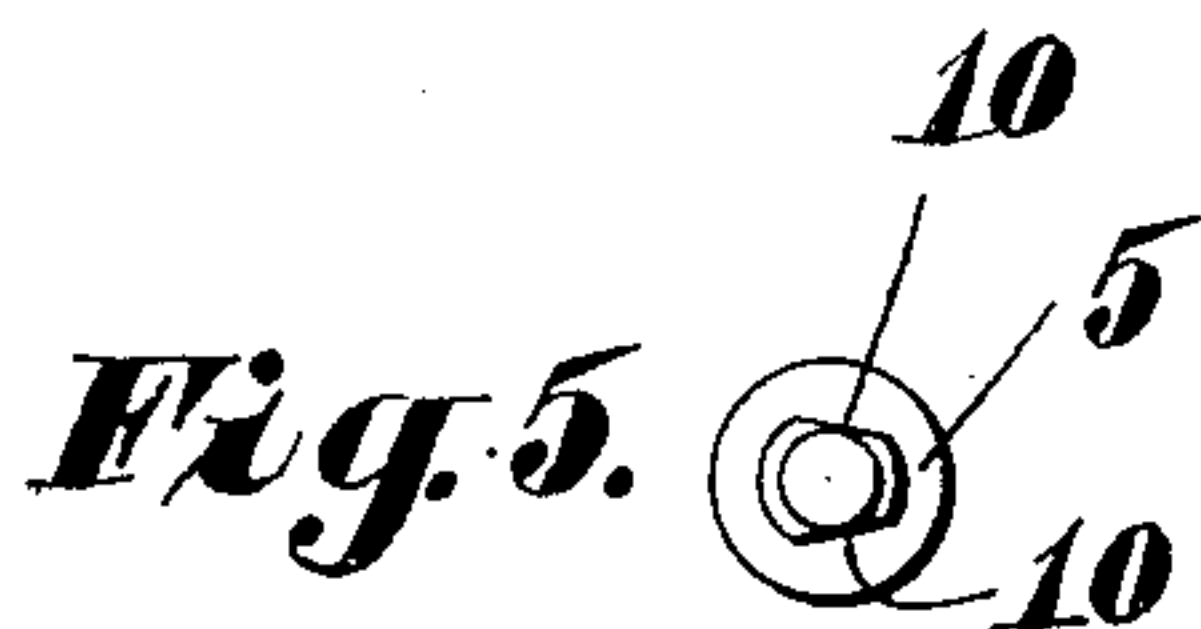


Fig. 5.

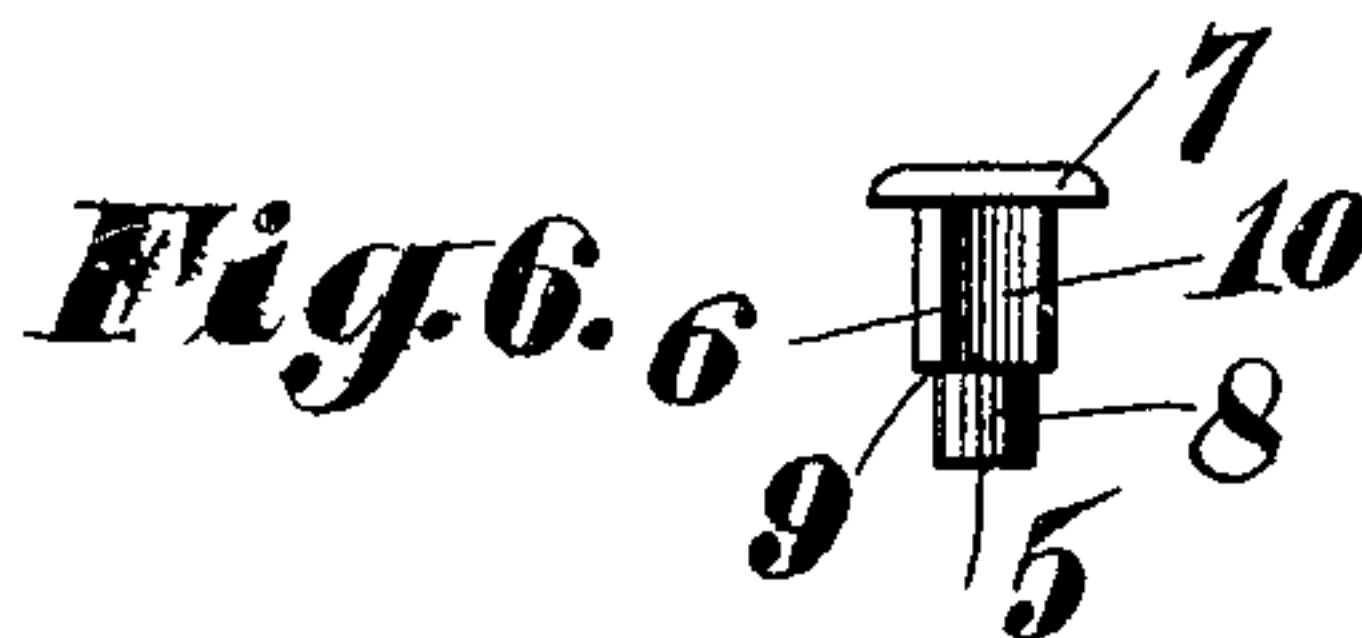


Fig. 6.

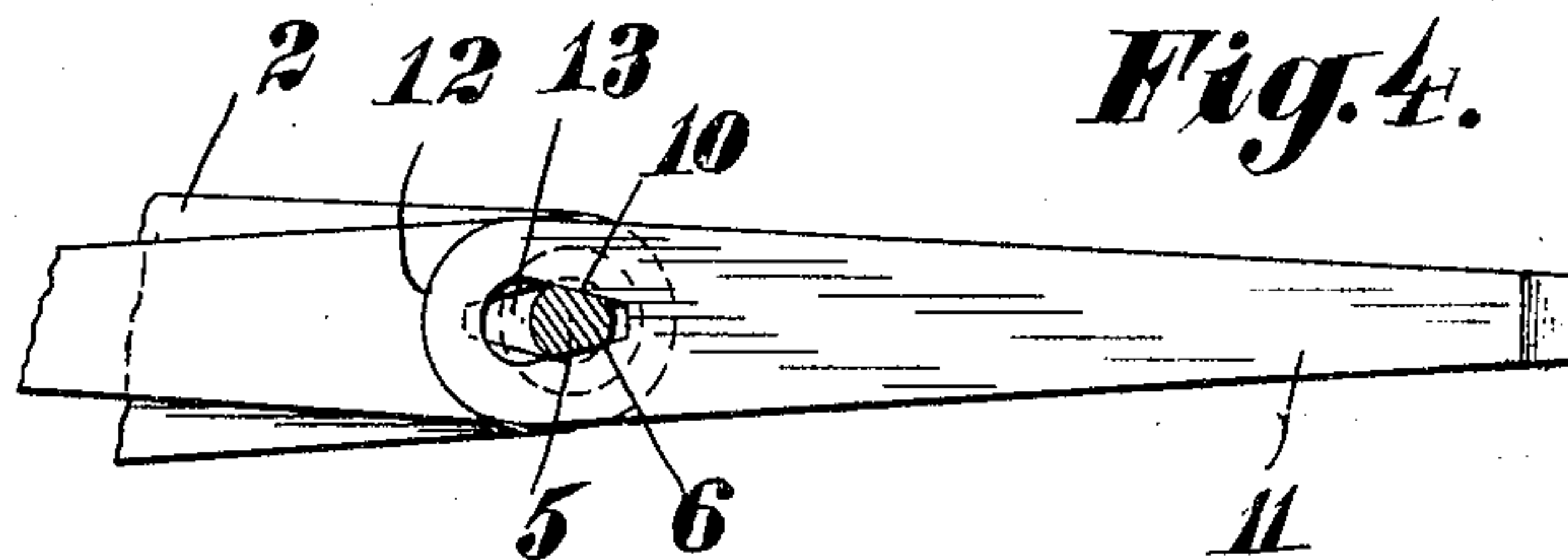


Fig. 4.

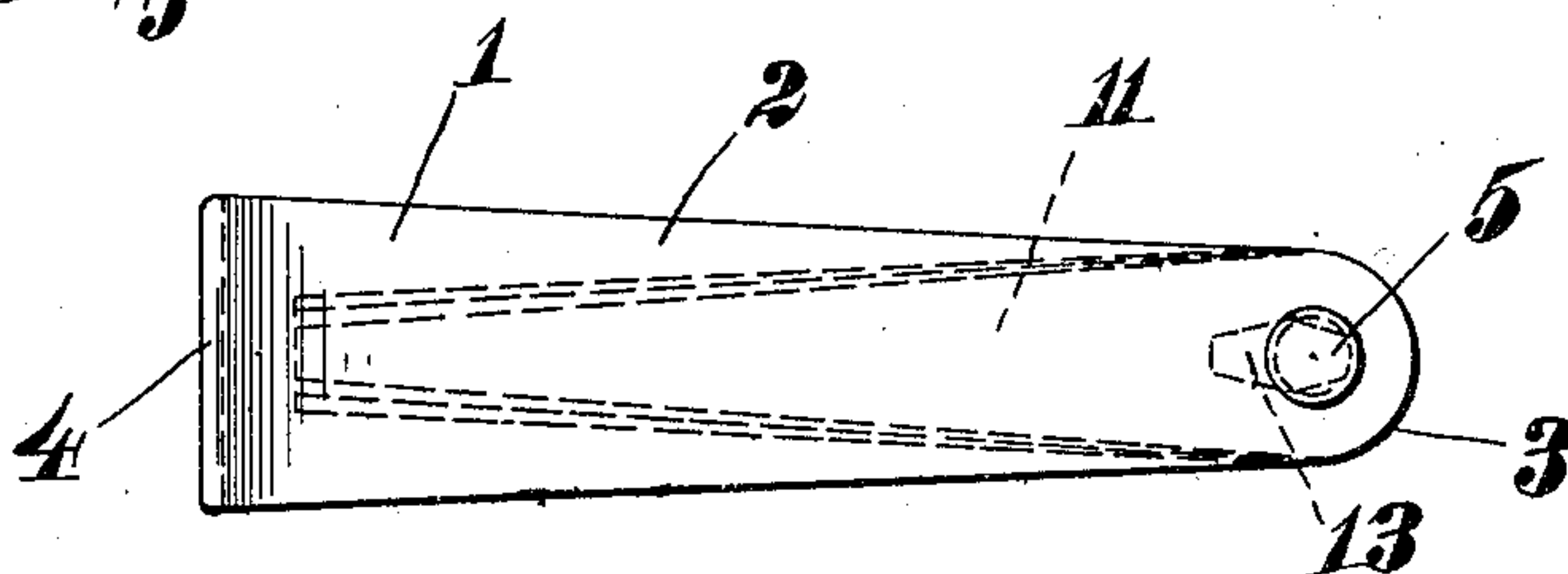


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES V. DODD, OF ELGIN, ILLINOIS.

SCREW-DRIVER.

No. 903,549.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed February 17, 1908. Serial No. 416,222.

To all whom it may concern:

Be it known that I, CHARLES V. DODD, a citizen of the United States, residing at Elgin, county of Kane, and State of Illinois, have invented certain new and useful Improvements in Screw-Drivers, of which the following is a specification.

My invention relates to screw-drivers, and particularly to folding screw-drivers, that is to screw-drivers in which the blade is adapted to fold within the handle when not in use in order that the device may be readily carried in the pocket.

The object of my invention is to provide a folding screw-driver as mentioned having a plurality of blades each of a different size and arranged upon a single stud, the stud and the blades being so constructed and arranged that the desired blade may be locked in extended position by pushing the same a slight distance backwardly into the handle after having been brought into alinement therewith.

A further object of my invention is to provide a folding screw-driver characterized as mentioned and so arranged that all wear on the stud and the adjacent portions of the blade shall be taken up, to the end that the blade shall always remain rigid with the handle when in operative position.

Other objects will appear hereinafter.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a side view of a screw-driver embodying my invention, one of the blades being extended and locked in operative position and the others being in a position to be used as a lever if necessary. Fig. 2 is an edge view of the screw-driver, one of the blades being in operative position and the others being folded within the handle. Fig. 3 is a side view of the device completely folded. Fig. 4 is a detail section on the line $x-x$ of Fig. 2 illustrating the blade locking device. Figs. 5 and 6 are details of the stud.

Referring to the drawings 1 indicates the handle of the screw-driver. This is formed or stamped out of a single sheet of metal and then bent back upon itself as shown in Fig. 2 forming the side walls 2 which are parallel throughout their length. The ends of the walls 2 at the open end of the handle

are rounded as indicated at 3 and the handle is slightly tapered as shown making the closed end 4 somewhat broader than the open end to better protect the ends of the blades when in folded position, and especially when being carried in the pocket. The walls 2 at the open end of the handle are connected by a stud 5. This comprises the body portion 6 which extends through one side of the handle and the several blades, a head 7 and a reduced portion 8 which extends through the opposite side of the handle and which is upset forming a rivet. By reducing the portion 8 a shoulder 9 is formed which prevents binding the blades too tightly in the handle. The body portion 6 is substantially cylindrical with the opposite sides flattened as at 10, the sides 10 being angularly disposed or non-parallel and converging toward the open end of the handle.

Pivotaly mounted on the stud 5 are a plurality of blades 11, each preferably being of a different size, the end opposite the working edge of each being rounded as at 12 to conform to the end 3 of the handle when in folded position. Each blade is provided with a tapered hole or aperture 13, to receive the stud 5, the taper thereof corresponding with the angular disposition of the sides 10 of the stud, and the taper being toward the working edge of the blade. The larger end of the aperture 13 is of sufficient size to permit the blades to swing freely on the stud and the taper of the stud and the aperture prevents the stud from entering the smaller end of the aperture except when the blade is extended in alinement with the handle, after which the desired blade may be pushed backwardly causing the stud to enter the narrower portion of the aperture, thereby locking the blade in operative position. The other blades may be folded within the handle or may be extended laterally as shown in Fig. 1 to serve as a lever if necessary. In constructing the device the aperture 13 is made somewhat longer than necessary in order that as the stud and the walls of the aperture become worn the wear may be taken up by the blade slipping a trifle further into the handle.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A folding screw-driver comprising a handle formed of a single strip of metal

bent back upon itself in combination with a stud connecting the open end of said handle and a blade pivotally mounted on said stud, said stud having a pair of angularly disposed faces converging toward the open end of the handle and said blade having an aperture to receive said stud, said aperture being tapered to correspond to the faces of said stud when in operative position as and for the purpose specified.

2. A folding screw-driver comprising a handle formed of a single strip of metal bent back upon itself in combination with a stud connecting the open end of the handle and a plurality of blades pivotally mounted on said stud, the opposite sides of said stud being flattened and angularly disposed with relation to each other, and said blades each being provided with an elongated tapered aperture to receive said stud, said blades being free to revolve on said stud when the latter is in the broadest portion thereof, and said stud being adapted to lock a blade in operative position when shoved backwardly

thereon after having been extended in alignment with said handle.

3. A folding screw-driver comprising a handle formed of a single strip of metal bent back upon itself forming parallel side walls, in combination with a stud connecting the open end of said handle, and a plurality of blades pivotally mounted on said stud, said stud having a pair of angularly disposed faces converging toward the open end of the handle, and each of said blades having an aperture to receive said stud, said apertures being circular at one end and tapered therefrom toward the working end of the blade to correspond to the faces of said stud when in operative position, substantially as described.

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

CHARLES V. DODD.

Witnesses:

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