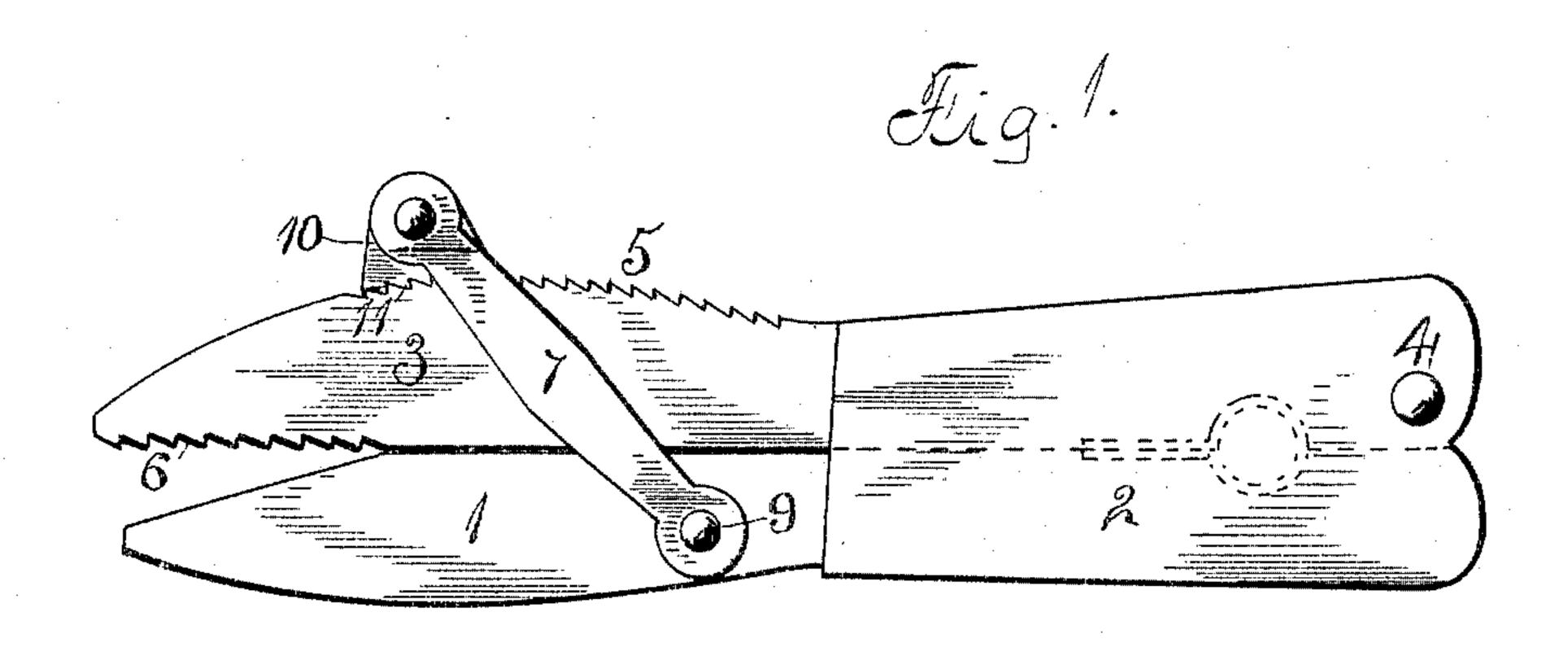
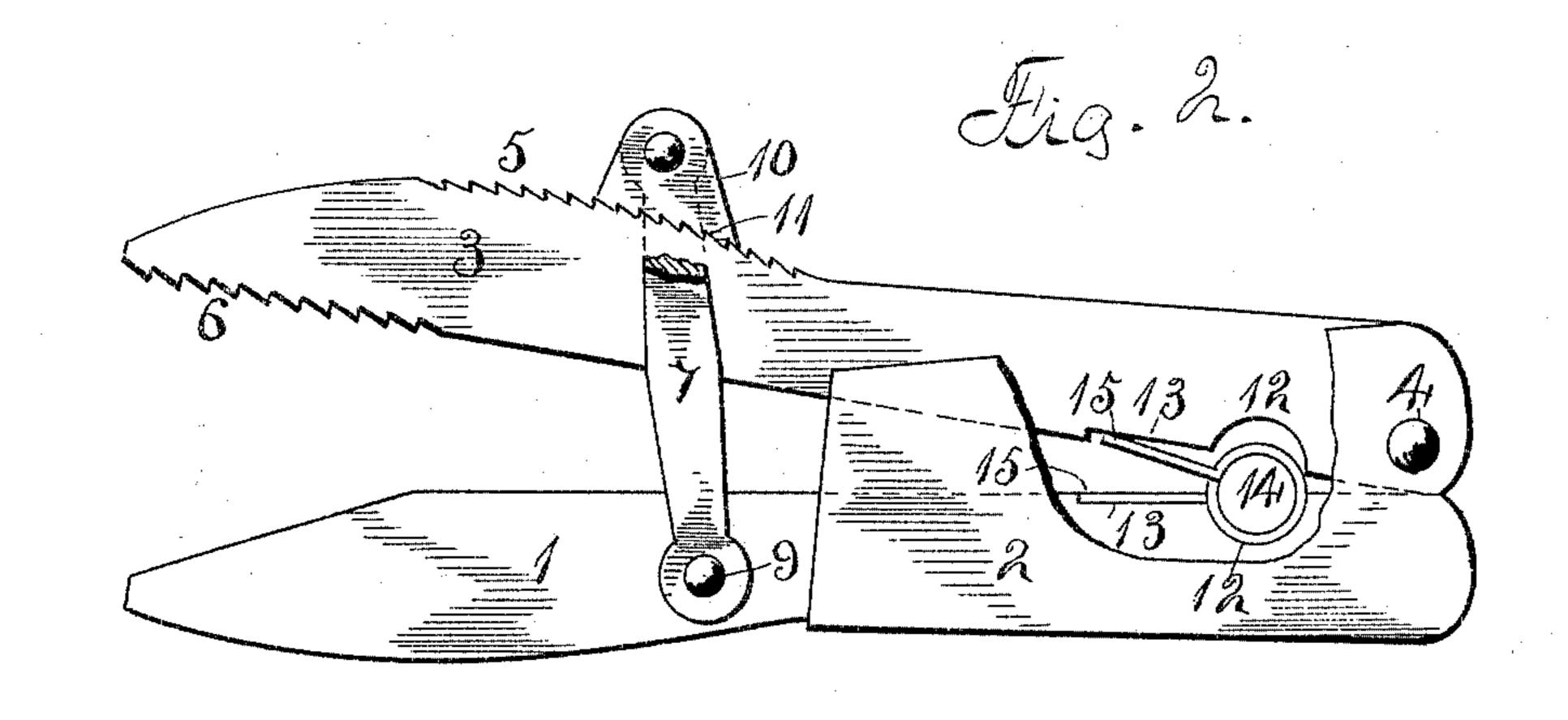
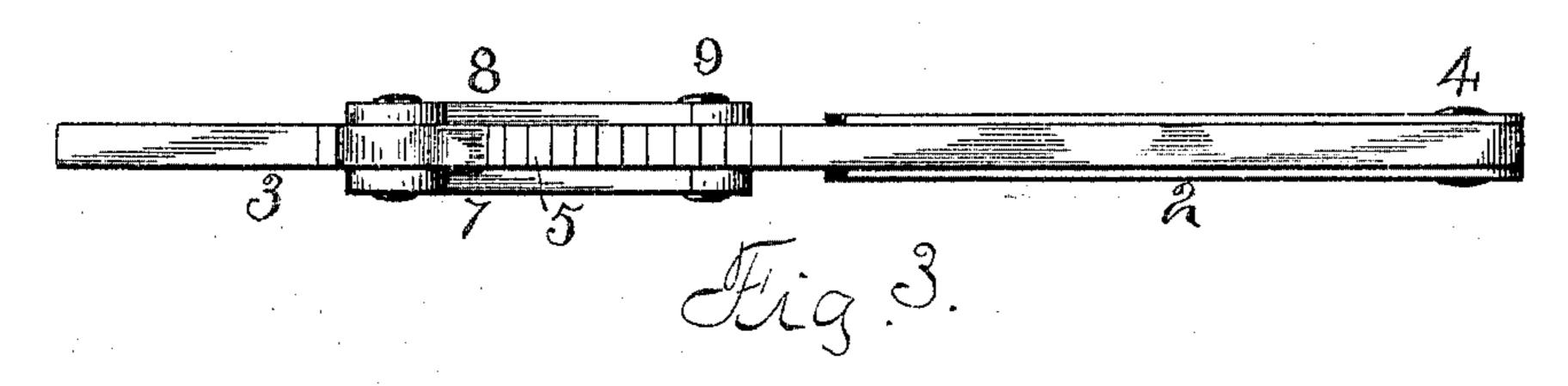
W. E. GILCHRIST.

WRENCH.

APPLICATION FILED MAY 20, 1904.







Witnesses: Es. Behel E. B. Clark Ulilliam & Gilehrist By ao Behel atty.

UNITED STATES PATENT OFFICE.

WILLIAM E. GILCHRIST, OF ROCKFORD, ILLINOIS, ASSIGNOR OF ONE-HALF TO EDWIN M. ST. JOHN, OF ROCKFORD, ILLINOIS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 784,151, dated March 7, 1905.

Application filed May 20, 1904. Serial No. 208,795.

To all whom it may concern:

Be it known that I, WILLIAM E. GILCHRIST, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

The object of this invention is to construct a wrench composed of two jaws pivotally connected and a pivoted dog carried by a swinging yoke.

The further object of this invention is to provide a shield secured to one of the jaws and covering the space between the jaws.

The further object of this invention is to form a recess in the meeting faces of the jaws and locating a spring in said recess having its ends resting against the meeting faces of the jaws, thereby serving to hold them open.

In the accompanying drawings, Figure 1 is a face representation of my improved wrench in which the jaws are closed. Fig. 2 is a similar view in which the jaws are practically open. Fig. 3 is a top edge view.

The lower jaw 1 is made of plate material and has a shield connected thereto. This shield 2 is formed of a single piece of material and receives the lower edge and sides of the lower jaw. The upper jaw has a pivotal connection 30 with the shield 2 at the point 4 and is received and guided by the shield. The upper edge of the upper jaw is provided with a series of sawteeth 5, and the lower edge of the free end of the upper jaw is provided with a series of 35 saw-teeth 6. To the lower jaw are pivoted two links 7 and 8, one located each side of the jaw and connected thereto by the rivet 9. These links receive the upper jaw between them and their free ends support a dog 10 in a 4º pivotal manner. This dog has a series of sawteeth 11 in its lower face. The meeting faces of the jaws are formed with semicircular recesses 12 and cut-away portions 13. A spring has its central coil 14 located in the recesses

and its free ends 15 located in the cut-away 45 portions. With the parts in the positions shown in the drawings the shield will serve to hold the jaws in proper alinement, also to protect the hand of the user from injury by being pinched between the jaws, and will also 50 hold the spring from displacement.

By the employment of the pivoted dog provided with the series of teeth it will readily adapt itself to the teeth formed in the upper face of the upper jaw in whatever position the 55 dog may be. The pivoted dog with its several teeth will insure a good connection with the upper jaw.

By this arrangement the hand of the user is protected against injury and the jaws 60 quickly adjusted and a strong construction in compact form produced.

It is evident that the shield forms the handle or that portion grasped by the hand when in use, which being in close proximity to the 65 dog it can be adjusted by the same hand.

I claim as my invention—

1. A wrench comprising two jaws of substantially a uniform thickness throughout, a separate shield permanently connected to one 70 of the jaws and embracing both faces of the other jaw.

2. A wrench comprising two jaws of substantially a uniform thickness throughout, a separate shield permanently connected to one 75 of the jaws and embracing the edge of the jaw to which it is connected and both sides of both jaws.

3. A wrench comprising two jaws of substantially a uniform thickness throughout, a separate shield permanently connected to one of the jaws and adapted to receive both jaws and having a pivotal connection with the other jaw.

WILLIAM E. GILCHRIST.

Witnesses:

A. O. Behel, E. Behel.