

No. 827,458.

PATENTED JULY 31, 1906.

A. MEFFERT.
PIPE WRENCH.

APPLICATION FILED MAR. 23, 1906.

Fig. I.

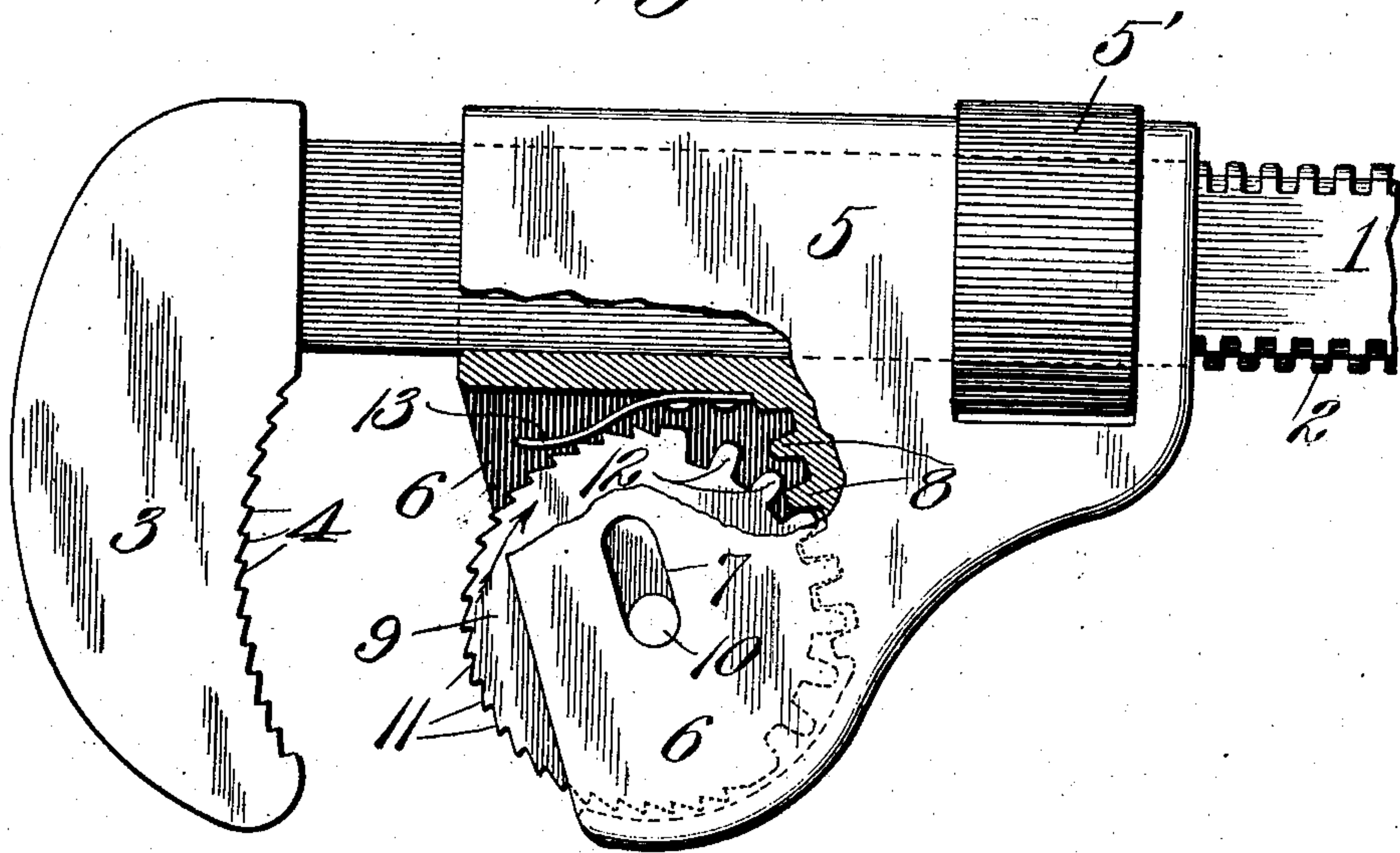
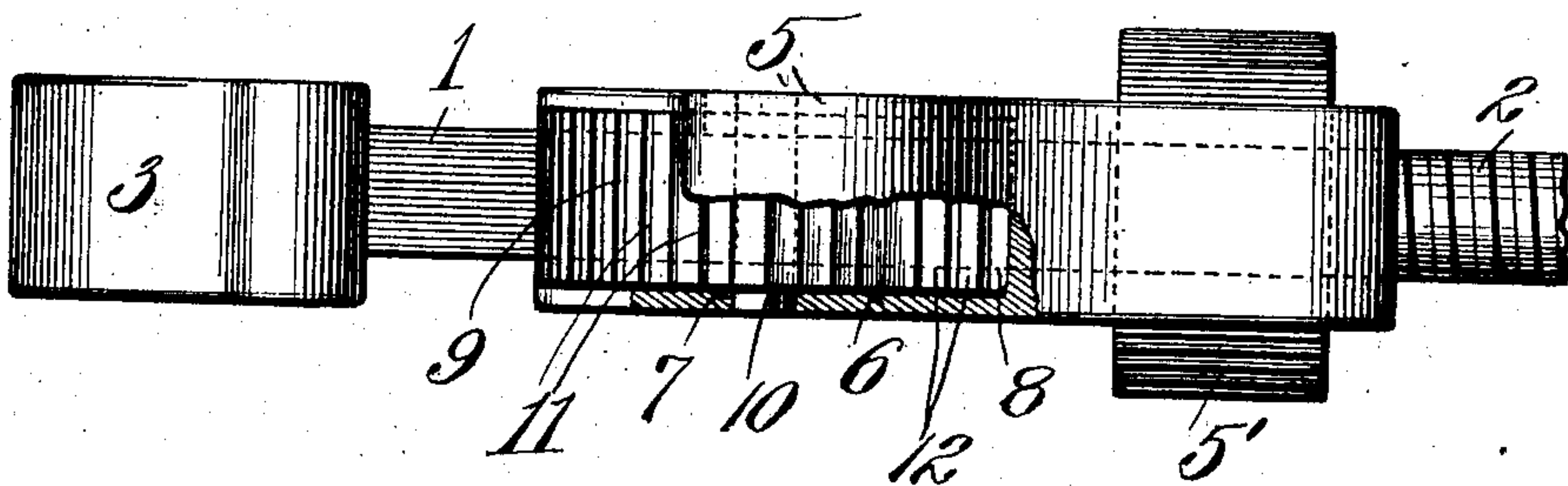


Fig. II.



Attest:
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UNITED STATES PATENT OFFICE.

ALEXANDER MEFFERT, OF ST. LOUIS, MISSOURI.

PIPE-WRENCH.

No. 827,458.

Specification of Letters Patent.

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Application filed March 23, 1906. Serial No. 307,584.

To all whom it may concern:

Be it known that I, ALEXANDER MEFFERT, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that type of wrenches that are used upon pipes or rods; and it has for its object to construct a wrench of this description having therein a movable gripping member associated with the movable jaw of the wrench and adapted to be rotated in a manner that will cause it to approach the pipe or object gripped when force is applied to the wrench.

Figure I is a view, partly in side elevation and partly in section, of my wrench. Fig. II is a view of the wrench partly in edge elevation and partly in section.

1 designates the shank of the wrench, which is threaded at 2 and which carries a fixed jaw 3, that is provided upon its inner face with serrations 4.

5 designates the movable jaw of the wrench, which is slidably fitted to the shank 1 and is adapted to be moved to and fro thereon by a nut 5', that is loosely seated in the jaw and meshes with the thread of the shank 1. The movable jaw is provided with side walls 6, each of which contains a slot 7, extending diagonally relative to the fixed jaw of the wrench, toward and from which the movable jaw is adapted to be moved. Within the movable jaw and at the base of the pocket provided between the side walls 6 are a plurality of teeth 8. These teeth extend at an angle to the shank of the wrench or diagonally relative to the fixed jaw 3, the teeth nearest the shank being closer to the fixed jaw than those farthest removed from said shank.

9 designates a rotatable gripping member or disk that is mounted in the pocket between the side walls of the movable jaw 5 and which is retained in this position by studs 10, projecting from the sides of the gripping member and arranged to operate in the slots 7. The gripping member 9 is provided at the portion of its periphery which faces the inner serrated edge of the fixed jaw 3 with serrations 11, between which and the serrations of the fixed jaw a pipe or other object

to be operated upon is gripped. Upon the periphery of the gripping member that is rearmost is a plurality of teeth 12, that are adapted to mesh with the teeth 8 in the movable jaw in order that rotation may be imparted to the gripping member when an object is gripped between it and the fixed jaw of the wrench, whereby said gripping member is caused to approach said fixed jaw, due to the oblique arrangement of the teeth 8 relative to said fixed jaw. As a consequence of this arrangement the gripping member is forced firmly against the object grasped by the wrench and a very highly efficient gripping action is obtained on the object.

13 is a spring carried by the movable jaw and adapted to rest upon the periphery of the gripping member 9 at a point between the shank of the wrench and the inner ends of the slots 7 in the movable jaw. This spring serves to return the gripping member to its outer position after the wrench has been removed from an object operated upon and also to maintain said gripping member in its outermost position, so that it is in position for action in the manner described when it is applied to any object on which the wrench is to be used.

I claim—

1. In a wrench, the combination of a shank and a fixed jaw carried thereby, a movable jaw slidably fitted to said shank, and a rotatable gripping member loosely mounted in said movable jaw and having engagement at its periphery with said movable jaw whereby it is rotated and moved in a direction toward said fixed jaw when an object is gripped between said gripping member and fixed jaw, substantially as set forth.

2. In a wrench, the combination of a shank and a fixed jaw carried thereby, a movable jaw slidably fitted to said shank, and a rotatable gripping member loosely mounted in said movable jaw and geared thereto at its periphery, substantially as set forth.

3. In a wrench, the combination of a shank and a fixed jaw carried thereby, a movable jaw slidably fitted to said shank, and a rotatable gripping member loosely mounted in said movable jaw and geared at its periphery to said movable jaw; said gripping member being provided throughout a portion of its periphery with serrations, substantially as set forth.

4. In a wrench, the combination of a shank and a fixed jaw carried thereby, a movable

jaw slidably fitted to said shank and having side walls provided with slots arranged diagonally relative to said fixed jaw, and a rotatable gripping member geared to said movable jaw at its periphery and having studs arranged to operate in said slots, substantially as set forth.

5 5. In a wrench, the combination of a shank and a fixed jaw carried thereby, a movable
10 jaw slidably fitted to said shank and having side walls provided with slots arranged diag-

onally relative to said fixed jaw, a rotatable gripping member geared to said movable jaw at its periphery and having studs arranged to operate in said walls, and a spring carried by said movable jaw and bearing against said gripping member, substantially as set forth. 15

ALEXANDER MEFFERT.

In presence of—

NELLIE V. ALEXANDER,
BLANCHE HOGAN.