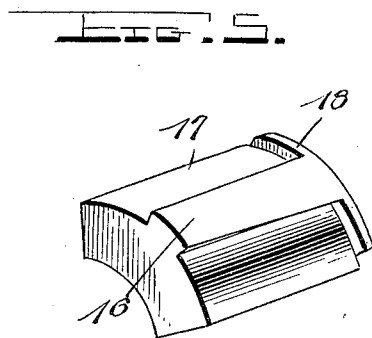
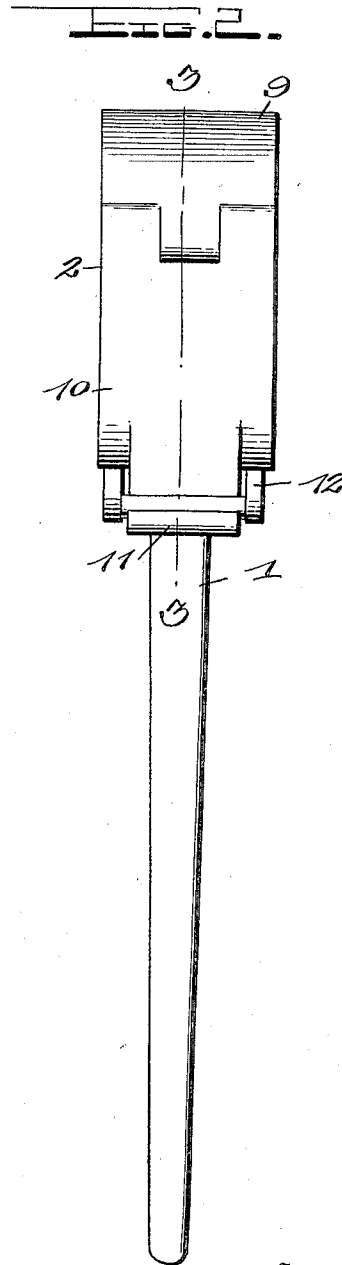
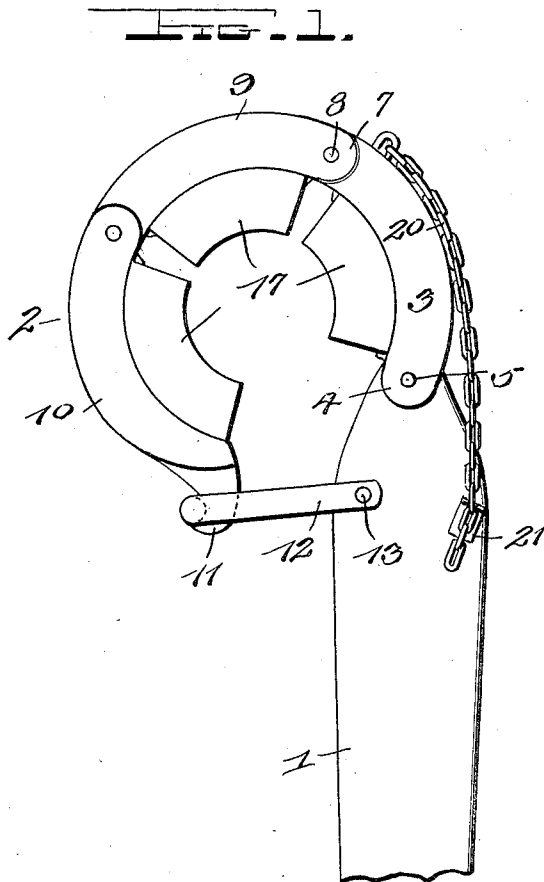


J. H. STROOPE.
WRENCH.
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1,057,593.

Patented Apr. 1, 1913.
2 SHEETS-SHEET 1.



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Witnesses

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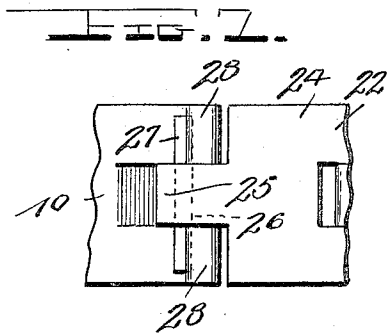
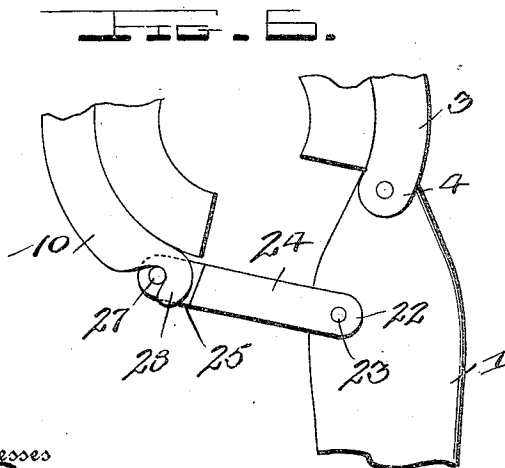
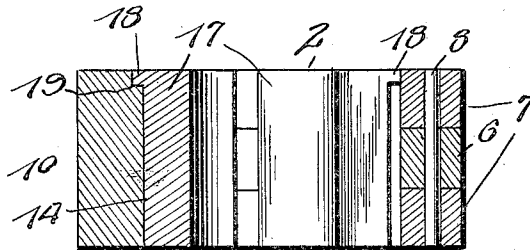
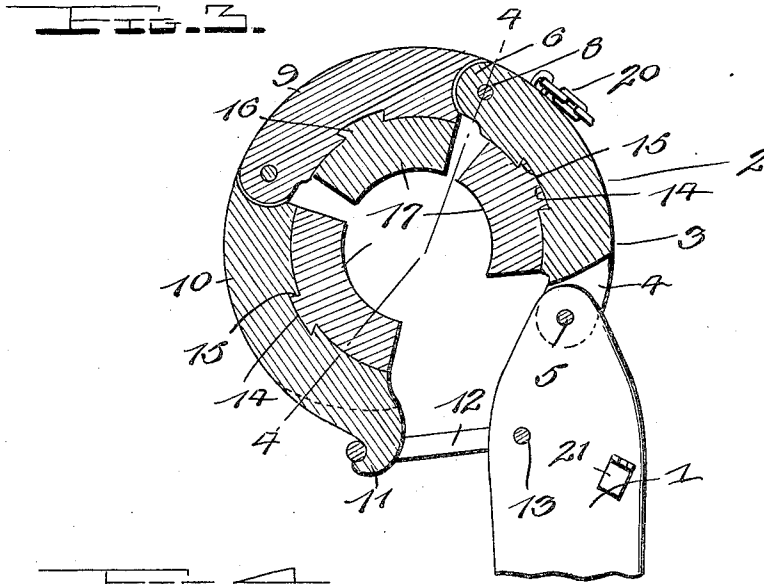
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2 SHEETS—SHEET 2.



Witnesses

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WRENCH.

1,057,593.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH H. STROOPE, a citizen of the United States, residing at Fullerton, in the county of Orange and State of California, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in wrenches and more particularly to a casing wrench, the object of the invention being to provide a wrench of this character which is particularly adapted for securing or unsecuring oil or gas well casings.

Another object of the invention is to provide a wrench of this character which will possess advantages in points of efficiency and durability, is inexpensive of manufacture and at the same time is simple in construction and operation.

With the above and other objects in view, the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described, pointed out in the claims and shown in the accompanying drawings in which,

Figure 1 is a side elevation of a wrench constructed in accordance with my invention. Fig. 2 is a front elevation. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2. Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3. Fig. 5 is a detail perspective view of one of the frictional engaging blocks. Fig. 6 is a fragmentary side elevation illustrating a slightly modified form of the invention. Fig. 7 is a fragmentary front elevation.

Referring more particularly to the drawing, 1 indicates the shank or handle of the wrench to the outer end of which is secured the wrench head 2, said head being formed in a series of sections pivotally connected one to the other. The section 3 of the wrench head is provided at one end with a pair of spaced ears 4 which are arranged upon opposite sides of the end of the handle 1 and pivotally secured thereto by means of the pin 5. The other end of the section 3 is provided with a centrally arranged ear 6, upon each side of which are arranged the spaced ears 7 of the section 9, said ears being pivotally connected by means of the pin 8. The section 10 is pivotally connected to the section 9 in a manner similar to that

above described, the free end of the section 10 being provided with a curved hook member 11 which is adapted to engage the intermediate portion of the yoke 12, the ends of which are arranged upon opposite sides of the handle 1 adjacent the end thereof and pivotally secured thereto by means of the pin 13.

The inner faces of the sections 3, 9 and 10 are provided with the transverse grooves 14 having the under cut side walls 15 adapted to receive the tapering tongues 16 formed upon the backs of the frictionally engaging blocks 17. The blocks 17 are provided upon one end thereof with a flange 18 which, when the blocks are in position is adapted to rest upon the shoulders 19 formed upon each section so that when the wrench is in its operative position, it will prevent the blocks from dropping therefrom. Secured to the outer side of the section 3 adjacent one end is a chain 20, the free end of which is adapted to be engaged with the catch members 21 mounted upon the handle so as to prevent the hook 11 from becoming detached from the yoke 12 when the wrench is pulled backward at each stroke.

In Fig. 6, I have illustrated a modified form of means for securing the wrench head to the casing or tubing. Secured to the handle 1 adjacent the inner end thereof by having the spaced ears 22 arranged upon each side of the handle and the pin 23 extending through the ears and the handle, is a block 24 having a centrally arranged ear 25 formed at the opposite end thereof. Extending through the opening 26 in the ear 25 is a rod 27 which is adapted to be engaged by the hook members 28 which are formed upon the end of the section 10 in place of the hook member 11, said hook members being disposed upon opposite sides of the ear 25 so that they will readily engage with the rod 27.

In the operation of my improved wrench, the sections are encircled about the casing or tubing and the hook 11 engages with the intermediate portion of the yoke 12 so that the bearing blocks 17 will frictionally engage the casing or tubing and rotate the same upon the reciprocation of the handle, and in order to prevent the disengagement of the hook 11 from the yoke 12 the chain 20 is engaged with the catch members 21.

From the above description taken in connection with the accompanying drawings, it

will be readily apparent that I have provided a simple and durable wrench of the above character which can be quickly and easily applied and which will be effective in its operation. It will be apparent that the device is extremely simple in its construction and can be manufactured at a comparatively low cost.

While I have shown and described the preferred form of my invention, it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from the scope of the appended claims.

What I claim is:—

1. In a wrench, the combination of a handle, a body portion pivotally secured at one end to one end of the handle, said body comprising a plurality of pivotally connected sections, each section being provided with a groove having undercut side walls, frictional engaging blocks having tapered tongues adapted to engage in said grooves, shoulders formed upon the inner faces of the sections of the body and arranged at one side thereof, flanges formed upon the frictional engaging blocks and adapted to engage said shoulders, and means carried by said handle and adapted to engage the free end of said body to hold said blocks into frictional engagement with an object.

2. In a wrench, the combination of a handle, a body portion pivotally secured at one of its ends to one end of the handle, said body comprising a plurality of pivotally connected sections, frictional engaging blocks carried by said sections, means carried by said handle and adapted to engage the free end of the body to hold said blocks into frictional engagement with an object, a chain secured at one of its ends to the rear face of one of the sections, and catch members carried by the handle and adapted to be engaged by the chain to prevent the free end of the body from becoming disengaged from the means carried by the handle.

3. In a wrench, the combination of a handle, a sectional body pivotally secured

at one of its ends to one end of the handle, means carried by said handle and adapted to engage the free end of the body to hold the same in frictional engagement with an object, a chain secured at one of its ends to the rear face of the body, and catch members carried by the handle adapted to be engaged by the chain to prevent the free end of the body from becoming disengaged from the means carried by the handle.

4. In a wrench, the combination of a handle, a sectional body pivotally secured at one of its ends to one end of the handle, frictional engaging blocks carried by said sections, shoulders formed upon the inner faces of the sections of the body and arranged at one side thereof, flanges formed upon the frictional engaging blocks and adapted to engage said shoulders, and means carried by the handle and adapted to engage the free end of said body to hold the blocks into frictional engagement with an object.

5. In a wrench, the combination of a handle, a sectional body secured at one end to one end of the handle, each section being provided with a groove having undercut side walls, frictional engaging blocks having tapering tongues adapted to engage in said grooves, shoulders formed upon the inner faces of the sections of the body and arranged at one side thereof, flanges formed upon the frictional engaging blocks and adapted to engage said shoulders, means carried by the handle and adapted to engage the free end of said body to hold the blocks into frictional engagement with an object, a chain secured at one of its ends to the rear face of one of the sections, and catch members carried by the handle and adapted to be engaged by the chain to prevent the free end of the body from becoming disengaged from the means carried by the handle.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOSEPH H. STROOPE.

Witnesses:

C. F. CULVER,
M. S. WEST.