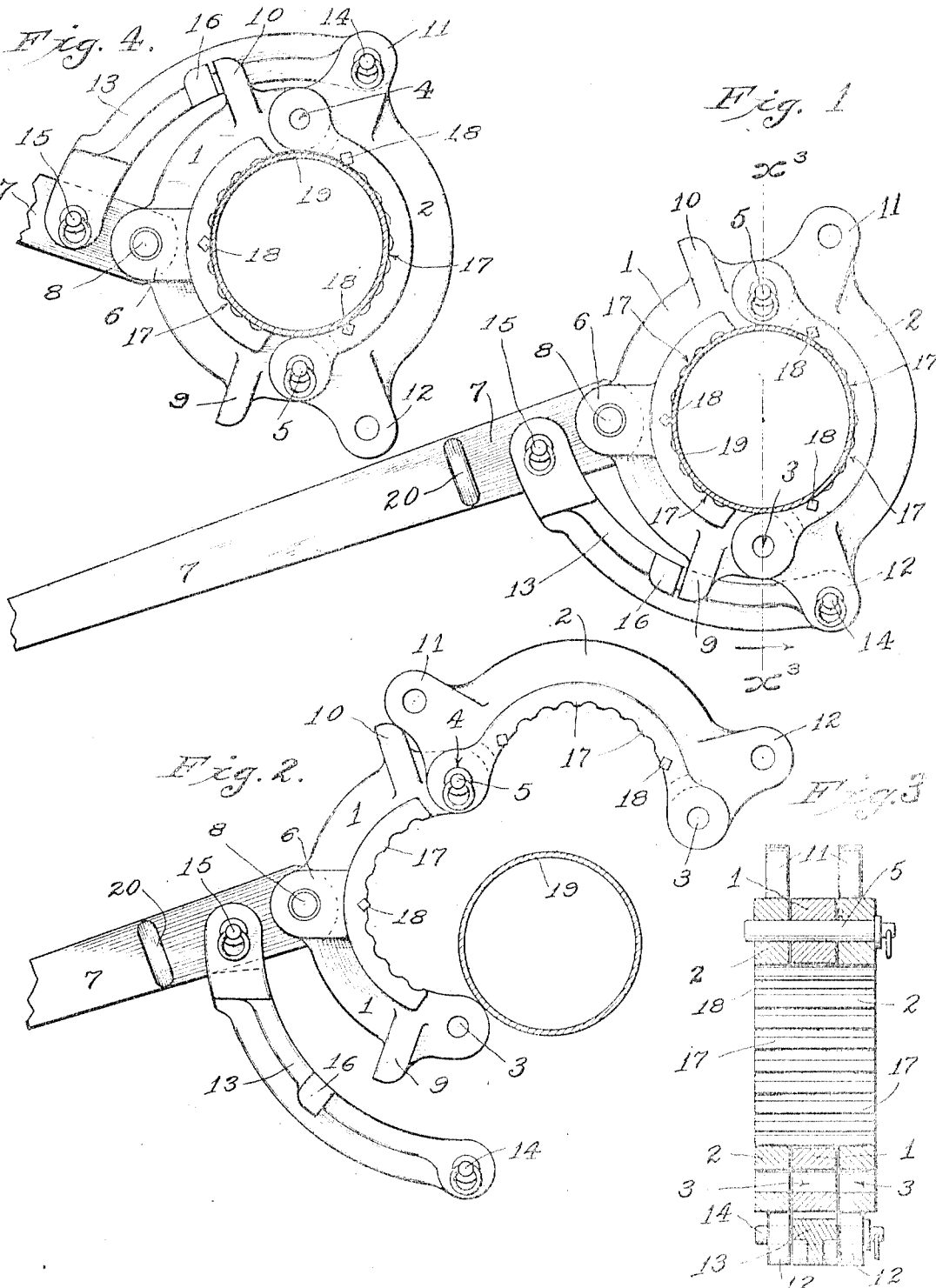


F. HENDRICKS.
 REVERSIBLE CASING WRENCH.
 APPLICATION FILED OCT. 31, 1911.

1,040,540.

Patented Oct. 8, 1912.



Witnesses:
 J. D. Thornburgh.
 Lute O. Peters.

Inventor:
 Frank Hendricks.
 J. J. Hackett, atty.

UNITED STATES PATENT OFFICE.

FRANK HENDRICKS, OF LOS ANGELES, CALIFORNIA.

REVERSIBLE CASING-WRENCH.

1,040,540.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed October 31, 1911. Serial No. 657,856.

To all whom it may concern:

Be it known that I, FRANK HENDRICKS, a citizen of the United States, residing at Los Angeles, county of Los Angeles, and State of California, have invented a new and useful Reversible Casing-Wrench, of which the following is a specification.

This invention relates to casing wrenches, and the main object of the invention is to provide a wrench of this character which may be reversed in operation without removing the wrench from the casing. Wrenches of this character are extremely heavy, and it is a difficult matter to handle them. The diameter of the casing which is received by the jaws of the wrench is often sixteen or eighteen inches, and the wrench is in consequence very heavy.

A further object of the invention is to provide for preventing the jaws from crushing the casing.

Other objects and advantages will be brought out in the accompanying description.

Referring to the accompanying drawings: Figure 1 is a plan view of the wrench showing it in position on the casing, the casing being in section. Fig. 2 is a view similar to Fig. 1 showing the jaws opened to pass over the casing. Fig. 3 is a section on the line x^3-x^3 , Fig. 1. Fig. 4 is a view similar to Fig. 1 showing the wrench in reverse position for unscrewing the casing.

The wrench comprises two jaws, 1 and 2, each jaw having eyes 3 and 4, either pair of eyes being adapted to receive a pin 5. The jaw 1 also has a bifurcated eye 6, in which is pivoted a handle 7 by means of a pin 8. The jaw 1 has abutments 9 and 10. The jaw 2 has a pair of bifurcated eyes 11 and 12. A curved link 13 is adapted to be pivotally secured by a removable pin 14 with either of the eyes 11 or 12, and at its other end the link 13 is pivotally connected by a pin 15 with the handle 7. The link 13 has a lug forming a stop 16, which is adapted to strike against either of the abutments 9 or 10 to limit the opening movement of the jaws. The inner face of each jaw may be constructed in any desired manner; for example it may have a series of gripping lugs 17, and also have a series of sharp-edged rods 18 which are almost entirely received by slots in the jaws, but their sharp edges protrude slightly and serve to bite into the casing 19 and prevent slippage. An

eye 20 is provided in the handle 7 for the attachment of a supporting chain not shown.

In operation when the link 13 is connected with the eyes 12 and the pin 5 passes through the eyes 4, as shown in Fig. 1, by operating the handle 7 to turn the jaws clockwise, the link 13 will draw in a clockwise direction on the eyes 12, while the pivotal point 8 will be moved counterclockwise, thereby causing the jaws to close firmly around the casing, and continued turning of the handle 7 will result in turning the casing clockwise and screwing it into position. If it is desired to loosen the jaws the handle 7 is simply moved in reverse direction, which will move back the link 13 and relax the jaws. This relaxing movement is limited, however, by the stop 16 striking the abutment 9, so that the jaws are only moved apart the slight distance necessary to relax them. If it is desired to remove the wrench the pin 5 may be withdrawn, whereupon the jaws 1 and 2 may be swung wide apart, hinging on their pin 12. They are thus permitted to swing apart a sufficient distance to be moved across the casing. If it is desired to reverse the action of the wrench the jaws are first relaxed, the wrench being suspended by the chain which is attached to the eye 20, and the pin 5 is first placed in the eyes 3, then the pin 14 is removed and the pin 15 also, and the link 13 is lifted bodily and moved into the position shown in Fig. 4, after which the pin 14 is placed in the eyes 11 connecting that end of the link, and the pin 15 is replaced to connect the other end of the link with handle 7. By then operating the handle 7 in a clockwise direction, the link 13 will pull on the eyes 11 in a counterclockwise direction and will move the pivotal point 8 in a clockwise direction, thereby contracting the jaws to grip the casing. To remove the wrench from this position the pin 14 may be withdrawn from the eyes 3 and the jaw 2 swung apart, as shown in Fig. 2.

What I claim is:—

1. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near one end, and means for detachably pivoting the other end of the link to either of said jaws.

2. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near

one end, means for detachably pivoting the other end of the link to either of said jaws, an abutment on each jaw, and a lug on said link forming a stop adapted to strike either
5 of said abutments.

3. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one of said jaws, each of said jaws having an eye at each end, a pin adapted to couple the
10 associated eyes at either end, a pair of outwardly projecting eyes on one of said jaws, a link, a pin adapted to pivotally connect one end of said link with either of the two
15 latter eyes, and a pin adapted to secure the other end of said link with said handle.

4. A reversible casing wrench comprising a pair of jaws, a handle pivoted to one jaw, a link detachably pivoted to said handle near one end, and means for detachably pivoting the other end of the link to either of said
20 jaws, each of said jaws being provided with a series of inwardly projecting teeth.

In testimony whereof, I have hereunto set my hand at Los Angeles California this 24 day of October 1911.

FRANK HENDRICKS.

In presence of—

G. T. HACKLEY,
GLADYS RUSSELL.