

No. 832,238.

PATENTED OCT. 2, 1906.

W. H. CLARK.  
CASING SCREWER.  
APPLICATION FILED JAN. 16, 1906.

Fig. 1.

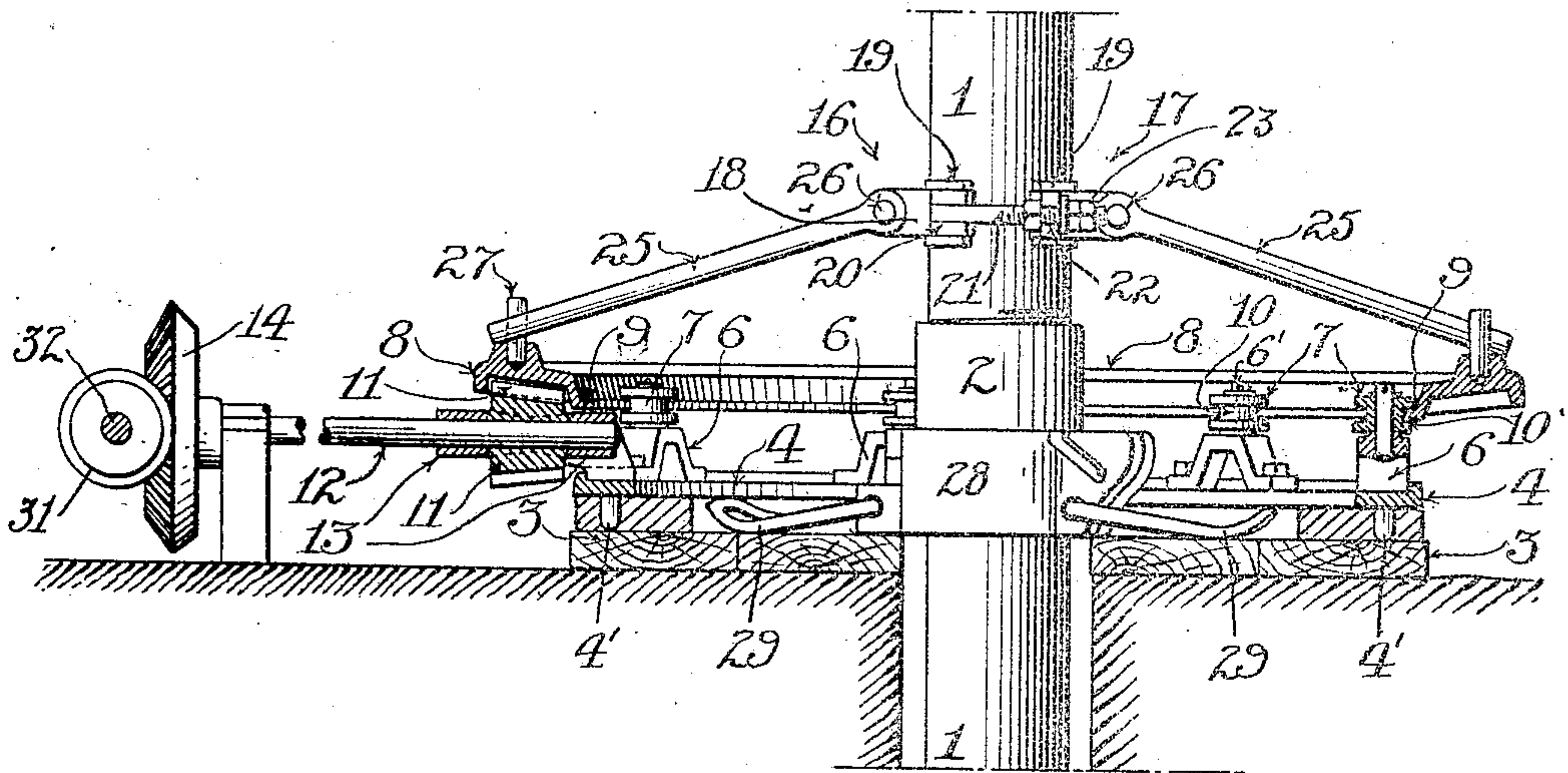
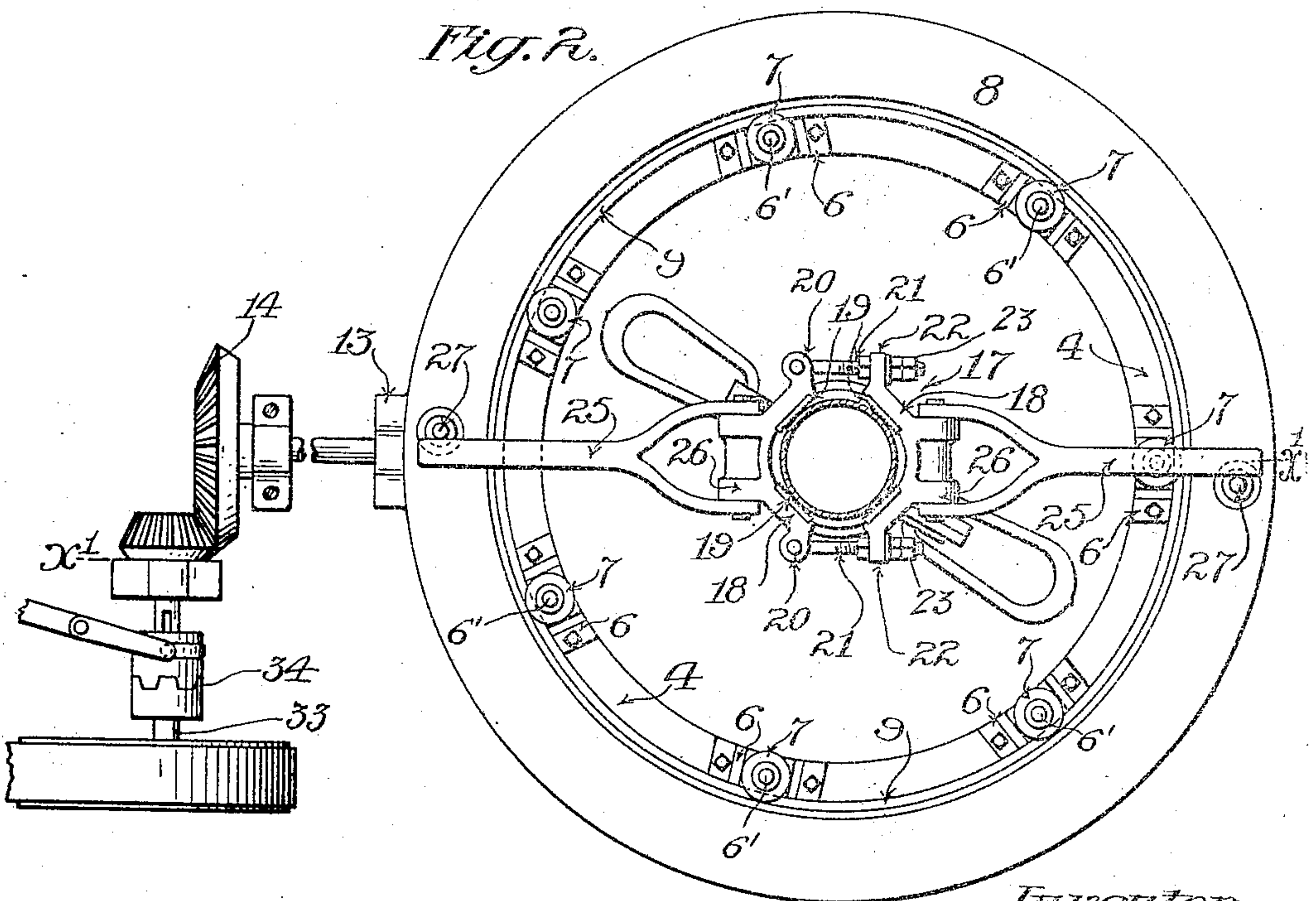


Fig. 2.



Witnesses:  
Frank L. Graham  
Almaurfield.

Inventor,  
William H. Clark.  
By  
Townsend, Lyon, Hackley & Knight  
Attorneys



# UNITED STATES PATENT OFFICE.

WILLIAM H. CLARK, OF FULLERTON, CALIFORNIA.

## CASING-SCREWER.

No. 832,233.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed January 18, 1906. Serial No. 296,232.

*To all whom it may concern:*

Be it known that I, WILLIAM H. CLARK, a citizen of the United States, residing at Fullerton, in the county of Orange and State of California, have invented a new and useful Casing-Screw, of which the following is a specification.

The main object of my invention is to provide a simple and convenient device or machine for screwing casing-sections on or off.

A further object is to provide a device or machine for this purpose which can be readily applied to and removed from the casing.

Another object of the invention is to provide for quick and convenient uncoupling or throwing off of the driving connection to the casing-engaging parts.

The accompanying drawings illustrate the invention, and, referring thereto, Figure 1 is a vertical section of the casing-screw in place on the casing on the line  $x'x'$  in Fig. 2. Fig. 2 is a plan.

The casing is made in sections (indicated at 1) joined together by collars or couplings 2, which screw on the casing-sections in usual manner.

3 designates a floor.

4 designates a base-ring resting on the floor 3 and carrying standards 6, on which are mounted by pivot-pins 6' a plurality of wheels 7 to rotatably support the main driving ring 8, which has an internal annular flange 9 engaging in circumferential grooves 10 in the supporting-wheels 7. Ring 8 is formed with bevel-teeth engaged by a bevel-pinion 11, mounted on a shaft 12, extending radially with respect to ring 8 and beneath the said ring, said shaft 12 being mounted in bearings 13 on base-ring 4. Suitable means, such as a gear 14, is provided on shaft 12 for driving the machine.

The casing-clamp comprises jaws 16 17, engaging the casing, said jaws being each formed with diverging arms 18, on which are secured toothed or serrated plates 19 for gripping or biting onto the casing. Jaw 16 has at the end of its arms 18 eyes 20, in which are pivoted eyebolts 21, whose free ends can swing into forks or notched portions 22 in the ends of arms 18 of jaw 17, said bolts 21 having nuts 23 engaging the forks 22 to hold the jaws in clamping position in the casing. The respective jaws 16 17 carry

arms 25, pivoted thereto at 26 and extending out to engage studs 27, projecting up from the driving-gear ring 8.

28 designates the split ring of an elevator, and 29 the links thereof, said split ring when in closed position engaging under the collar 2 and resting on the floor or support 3, so as to support the casing in position. Except at such times as the elevator is required in lifting the casing the links 29 will lie in position shown in the drawings, the ring 4 being of sufficient size to enable said links to lie freely within said ring without interfering with the rotation of the parts and to enable the links to be raised or turned up over the casing for lifting the latter when desired. The driving mechanism for the shaft 12 may consist of a gear 14, engaged by a pinion 31 on a shaft 32, connected with a driving-pulley shaft 33 through a clutch 34, so that the casing-screw can be thrown into and out of operation without interfering with the operation of the machinery as a whole. The shaft 12 is sufficiently low and long to enable free passage of the operator around the machine.

The operation is as follows: Assuming that the casing is partly sunk and that a screw-section has been put on and is to be screwed tight to the joint or coupling, the jaws 16 17 are placed thereon and tightened by nuts 23, and the arms 25 are allowed to drop onto the ring 8. On then starting the driving-gear in operation the pins or studs 27 will in their revolution strike against the arms 25 and carry the same around with the ring, thereby rotating the clamp 16 17 and screwing the new casing-section into the preceding joint or coupling. As the casing descends in thus being screwed on the arms 25 turn on their pivots 26 to allow of such descent, and the sliding contact between the arms 25 and pins 27 enables this movement to take place without binding, since in the descent of the casing the arms 25 will tend to spread outwardly and will slide over said pins. On reverse movement of the device arms 25 engage on the opposite side of pins 27, so that they operate equally well in either direction. The serrations in jaws 19 are cut so as to catch into the casing in either direction of movement. The ring 4 is held from rotation by suitable means, as by studs or pins 4', extending into sockets in floor or support 3.



The reversal of the casing-screw for screwing on or unscrewing is effected by reversing the driving-engine in usual manner.

It will be noted that the whole device is re-  
5 movable and portable.

What I claim is—

1. A casing-screw comprising a driving-  
ring, a clamp for engaging the casing and de-  
tachably connections between the clamp and  
10 the driving-ring.

2. A casing-screw comprising a driving-  
ring, having a projecting part, a clamp for  
engaging the casing, and an arm pivoted to  
the clamp and adapted to rest on the ring  
15 and to be engaged by the projecting part  
thereof.

3. A casing-screw comprising a driving-  
ring having two studs, a casing-clamp formed

of two jaws with means for drawing the jaws  
together, and arms pivoted to the respective 20  
jaws and adapted to fall onto the driving-  
ring in position to be engaged by the respec-  
tive studs thereon.

4. A base-ring, wheels pivotally mounted  
thereon, a gear-ring supported on said wheels, 25  
a pinion mounted on said base-ring and en-  
gaging said gear-ring and a casing-clamp  
provided with means for detachably connect-  
ing it with the gear-ring.

Signed at Los Angeles, California, this 6th 30  
day of January, 1906.

WILLIAM H. CLARK.

Witnesses:

ARTHUR P. KNIGHT,  
VERNA A. TALBERT.