

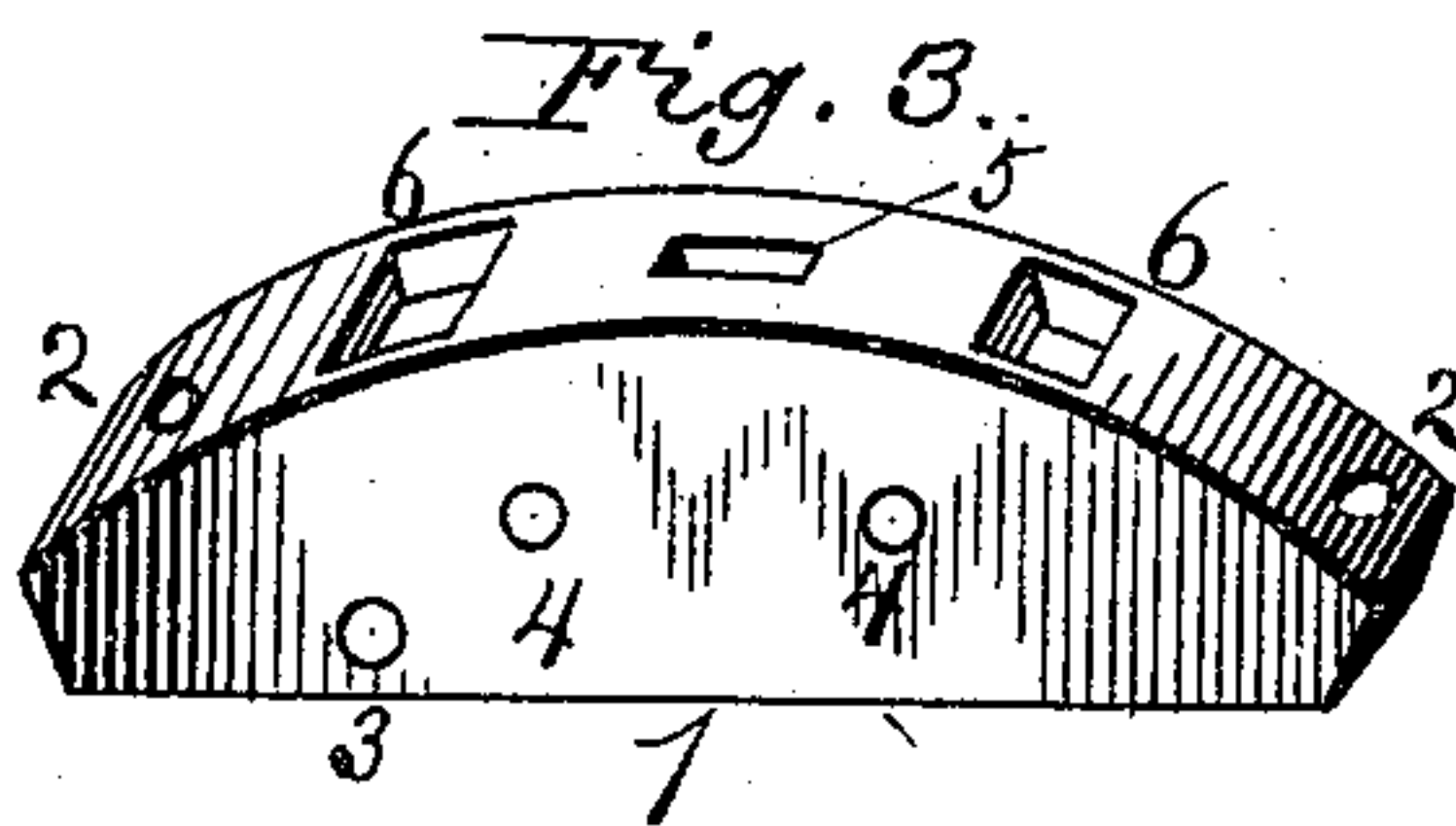
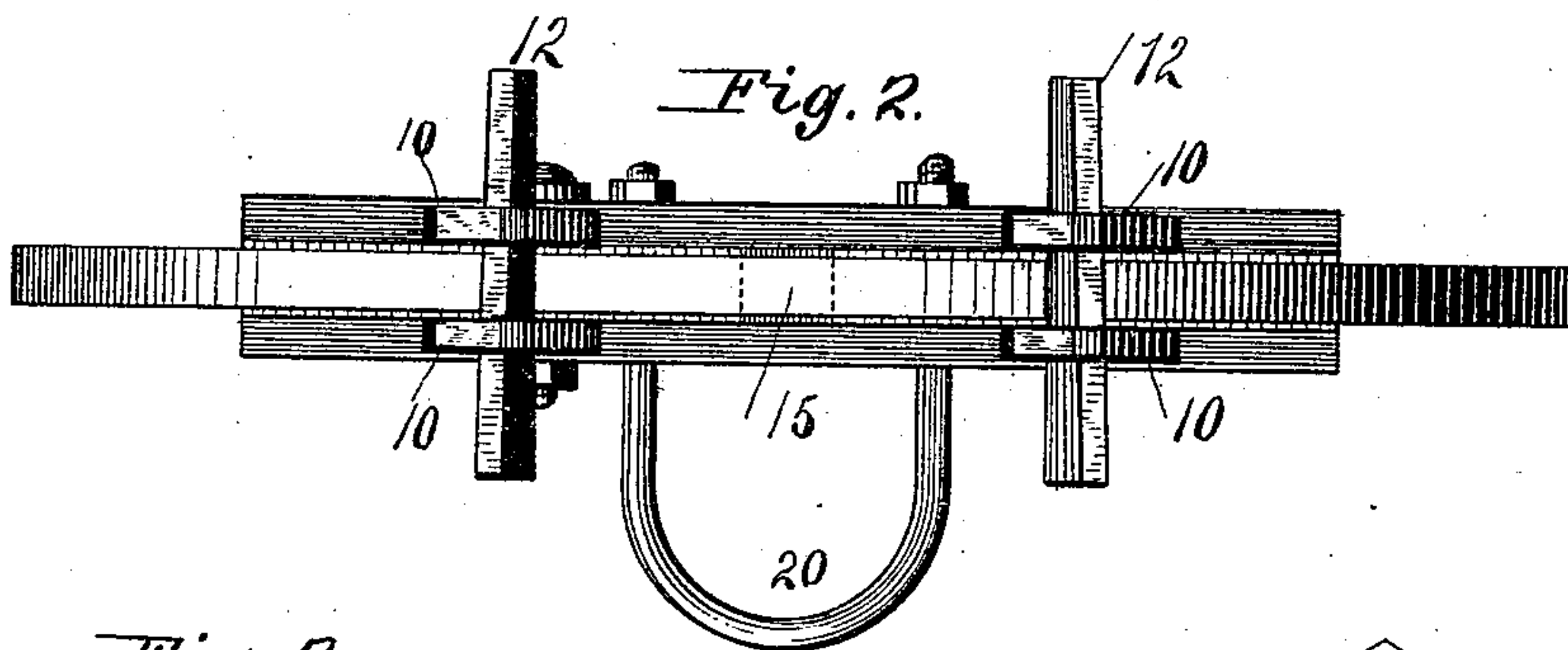
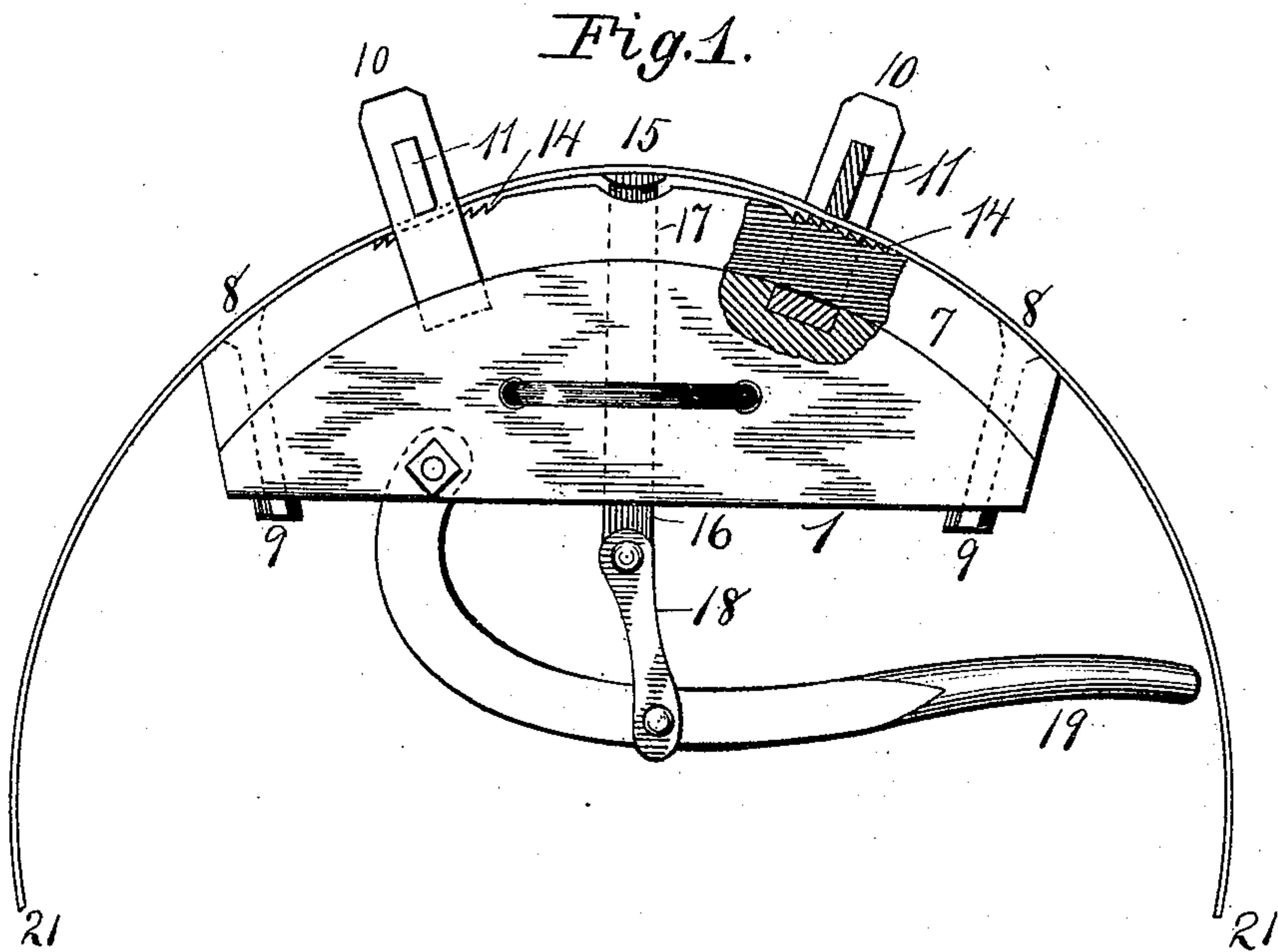
(No Model.)

D. S. & J. D. TEMPLETON.

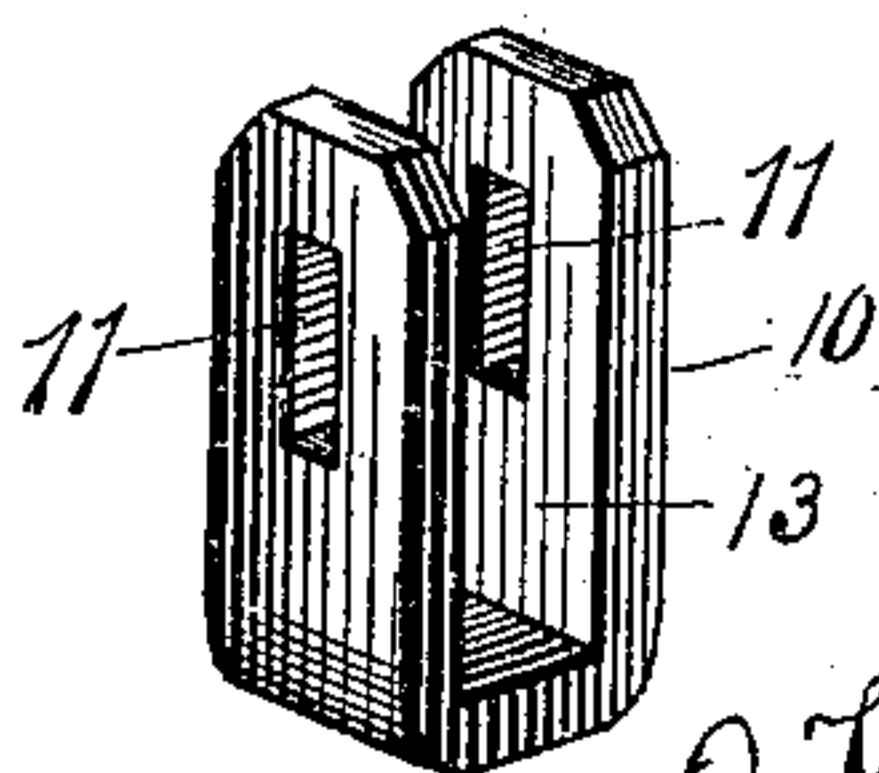
TIRE SHRINKER.

No. 355,357.

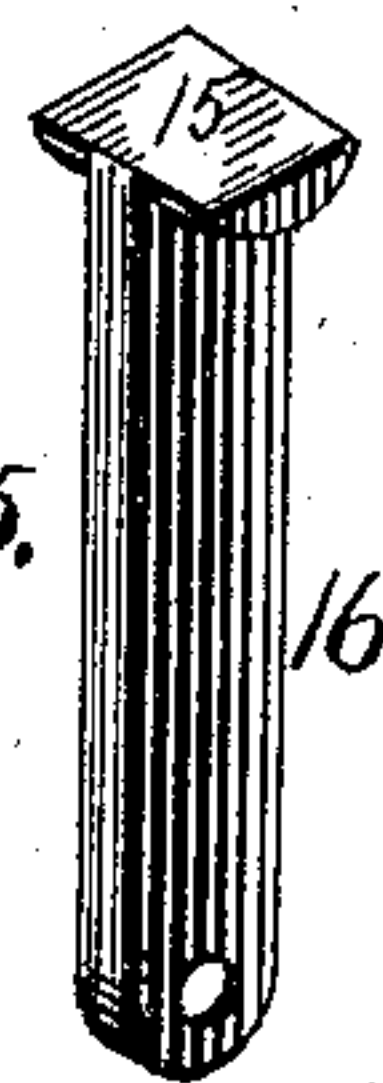
Patented Jan. 4, 1887.



*Fig. 4.*



*Fig. 5.*



Witnesses:  
P. C. Fenwick  
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By John S. Duffie  
Their Attorney.



# UNITED STATES PATENT OFFICE.

DAVID SCRIVNER TEMPLETON AND JOHN DALEY TEMPLETON, OF LONE GROVE, TEXAS.

## TIRE-SHRINKER.

SPECIFICATION forming part of Letters Patent No. 355,357, dated January 4, 1887.

Application filed October 19, 1886. Serial No. 216,686. (No model.)

*To all whom it may concern:*

Be it known that we, DAVID SCRIVNER TEMPLETON and JOHN DALEY TEMPLETON, citizens of the United States, residing at Lone Grove, in the county of Llano and State of Texas, have invented certain new and useful Improvements in Tire Shrinkers and Stretchers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention is a device for shrinking or stretching wagon or other tires.

In the accompanying drawings, Figure 1 is a top plan view of our invention. Fig. 2 is an edge view of the same; and Figs. 3, 4, and 5 are detail views.

Our invention is described as follows:

In the accompanying drawings, 1 is a block of wood having in it perforations 2, 3, and 4, a mortise-hole, 5, and mortised sockets 6. One edge of this block of wood is straight and the other is circular. On the circular edge we secure a circular bar of iron or other metal, 7, by means of the bolts 8, which pass through the ends of said bar 7, and through perforation 2 in the ends of the block 1, and are secured in place by nuts 9.

10 are clamping-blocks, which are made U-shaped and have through their upper ends mortise-holes 11, to receive the clamping wedges or keys 12. The bent end of these clamping-blocks are fitted in mortised sockets 6 cut in the circular edge of the block 1, and the circular bar 7 passes through the openings 13 in said clamping-blocks, and holds them down firmly in said mortise-sockets 6. On the outer edge of said bar 7 are two short rows of teeth, 14, which point inward toward the tire-kinker head. From said tire-kinker head 15 is extended an arm, 16, which passes entirely through a mortise-hole, 17, in said iron bar 7, and through the mortise-hole 17 in the block 1. To the lower end of this arm 16 is pivoted another arm, 18, the lower end of which is pivoted to a bent lever, 19, the fulcrumed end of

which lever is pivoted in the block 1 by means of a bolt which passes through the end of said lever and through the hole 3 in said block.

The yoke-bolt 20 has its ends passed through the perforation 4 in said block 1, which ends are secured by nuts. This yoke-bolt is a handle by which to carry or move the device. 21 is the tire put in position to be shrunk or stretched.

To shrink the tire, put in place its inner face resting against the outer edge of curved bar 7, the said tire being between the two arms of the U-shaped clamping-blocks 10. Drive up one of the keys 12, and raise the kinker-head 15 by pulling on the lever 19. Then drive up the other key 12. Now pull the lever 19 back, which brings the kinker-head down even with the outer edge of the circular bar 7. Hammer the kink made in the tire down smooth, drive out the keys, take out the tire, and it is ready for setting on the wheel. The two rows of teeth 14, above described, impinge against the inner face of the tire and keep it from slipping back while the kink is being driven down.

To stretch the tire, heat the same to suit. Place the same on the circular bar 7, as above described, drive down both the keys 12, and then pull on the lever 19 and thus force up the kinker-head 15. When stretched enough, remove keys 12, and the tire can be taken out; or if not stretched enough it can be moved round and the same operation can be performed. Run the tire with the traveler, mark with center punch, set compass to marks, making allowance for draw, heat tire, put in machine, kink until punch-marks are right with compasses, and hammer down smooth, when all is finished for putting on the wheel.

For simplicity in construction, strength, and durability, this device has no equal. Any one can use it with very little expense.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The above-described tire shrinker and stretcher, consisting of the block 1, having the perforations 2, 3, and 4, mortise-hole 5, and mortised sockets 6, curved bar 7, secured to the circular edge of said block 1 by means of

bolts 8 and nuts 9, and having on the outer  
edge the teeth 14, the U-shaped clamping-  
blocks 10, their bent ends fitting in the mor-  
tised sockets 6 and under the curved bar 7,  
5 their mortised ends extending up either side  
of said bar and beyond its outer edge, keys 12,  
fitting in the mortise-holes 11 of said U-shaped  
blocks, kinker-head 15, having the arm 16 ex-  
tending through the mortise-hole 17 in said  
10 bar 7, and mortise-hole 5 in block 1, arm 18,  
pivoted to the lower end of said arm 16 and to

the lever 19, and the lever 19, having its ful-  
crum end pivoted to the block 1, all substan-  
tially as shown and described, and for the pur-  
poses set forth.

In testimony whereof we affix our signatures  
in presence of two witnesses.

DAVID SCRIVNER TEMPLETON.

JOHN DALEY TEMPLETON.

Witnesses:

A. TEMPLETON,

A. D. RAY.