

No. 896,724.

PATENTED AUG. 25, 1908.

J. H. HALDER.

END GATE FASTENER.

APPLICATION FILED OCT. 25, 1907.

2 SHEETS—SHEET 1.

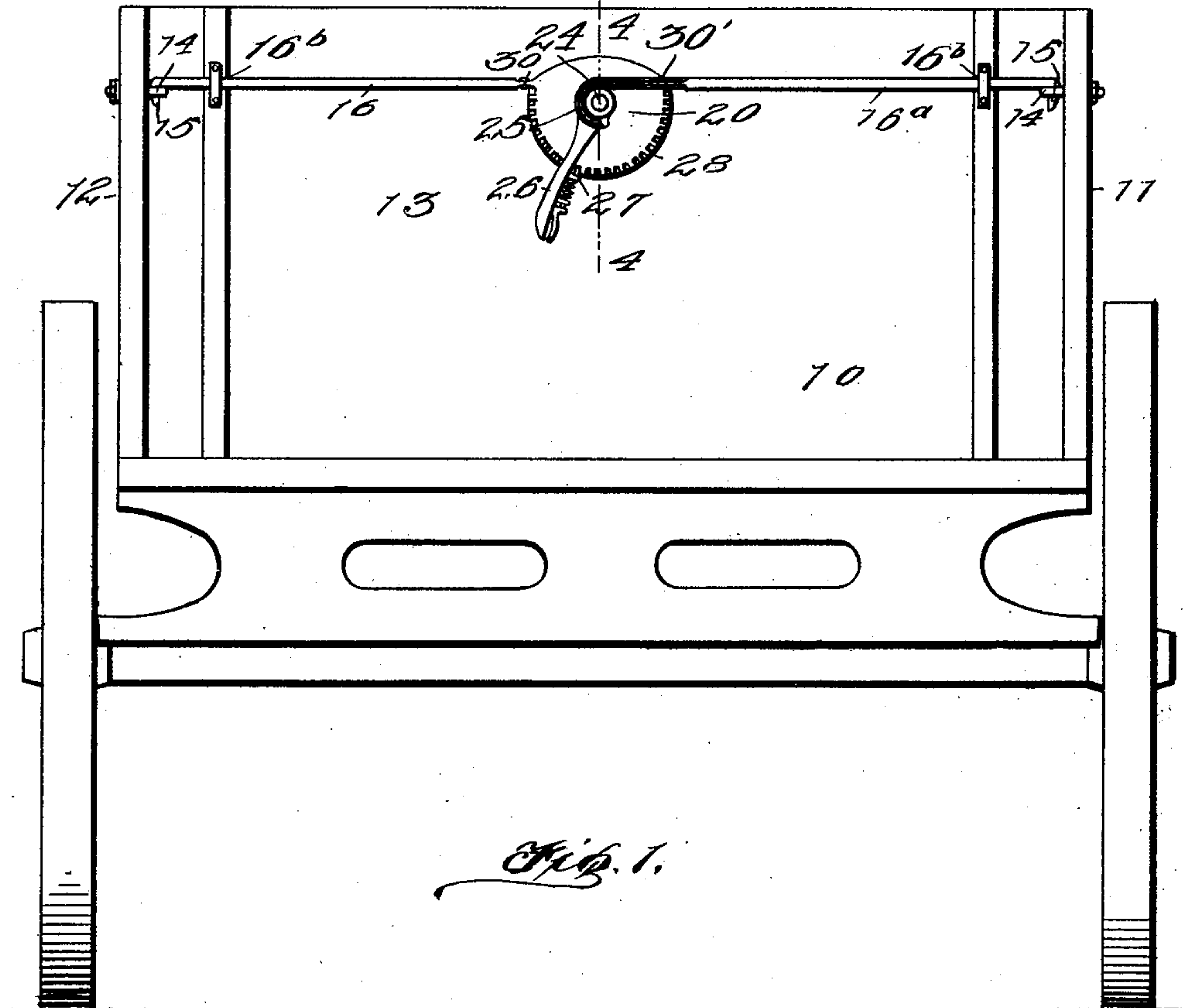


Fig. 1.

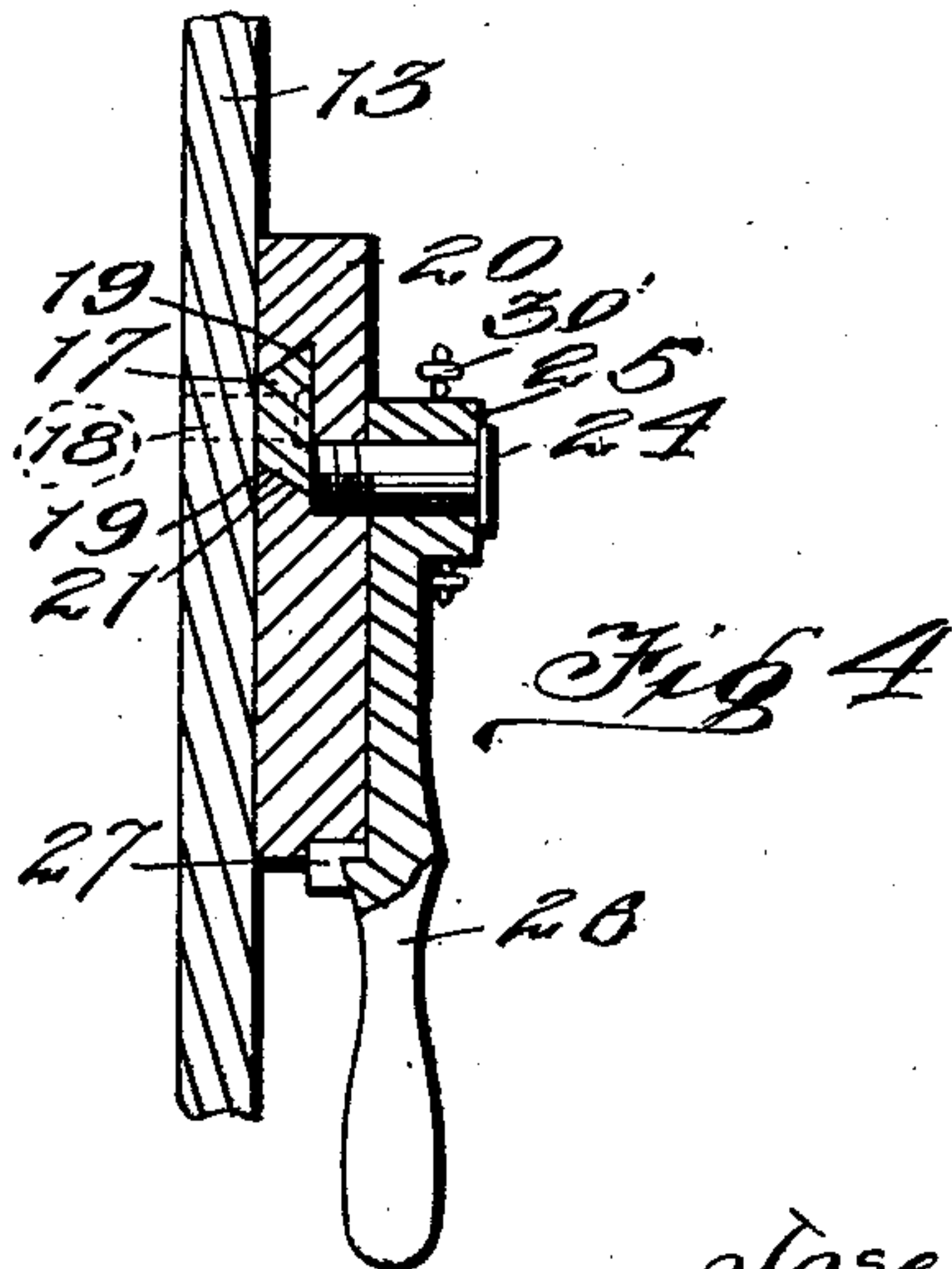


Fig. 4.

WITNESSES
Geo L. Thom
E. L. Chandler

INVENTOR
Joseph H. Halder
By Woodward & Chandler
Attorneys

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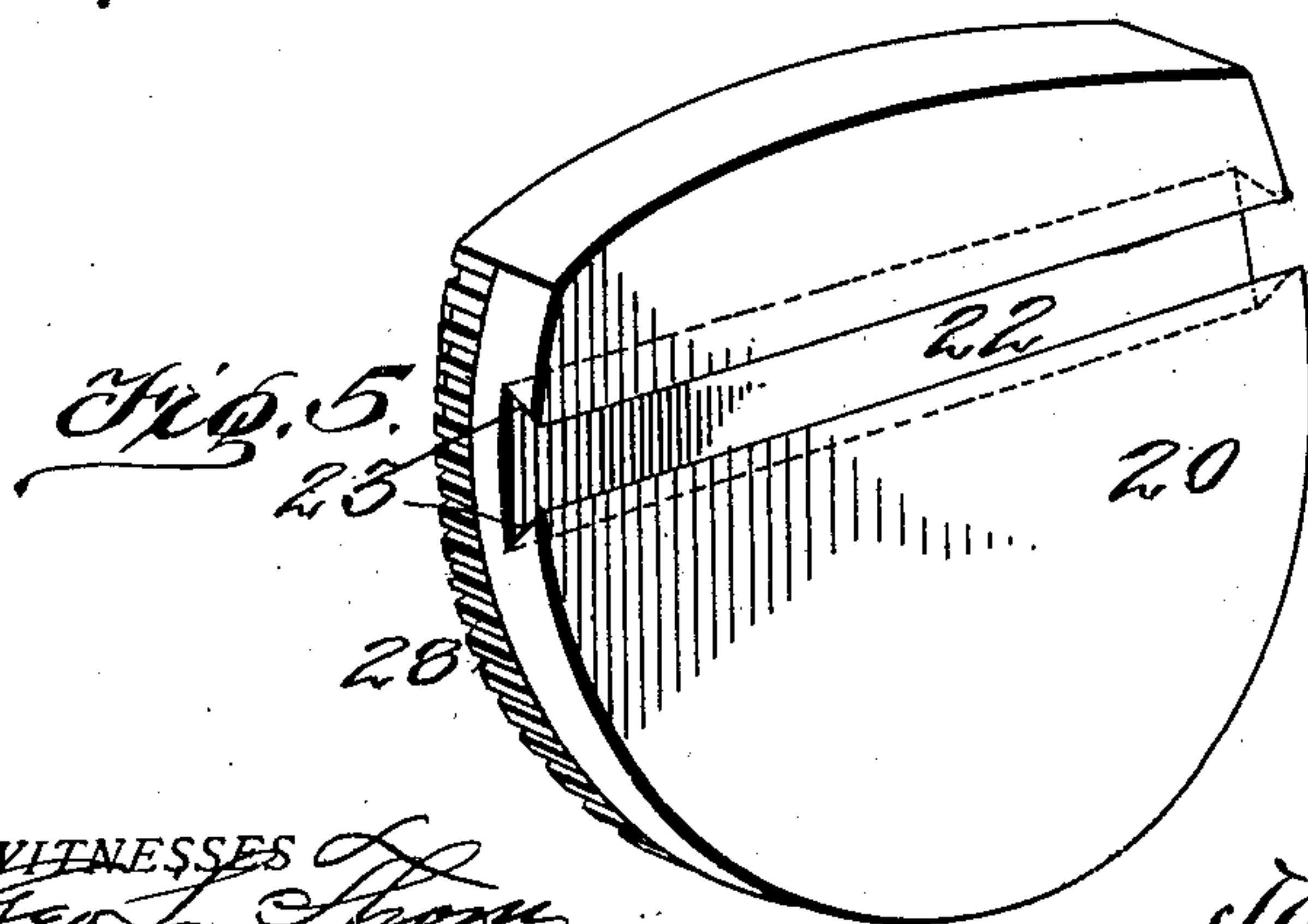
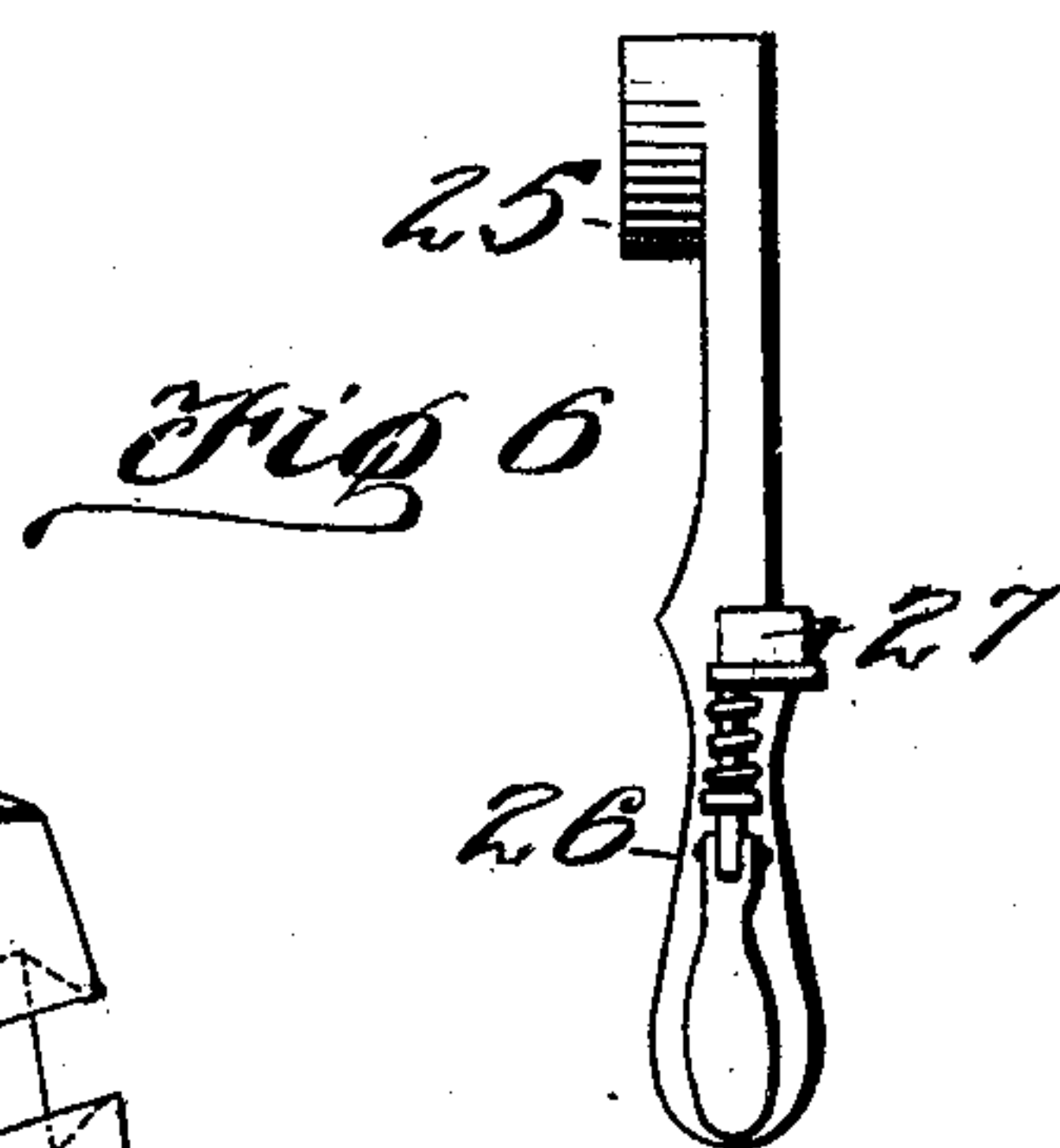
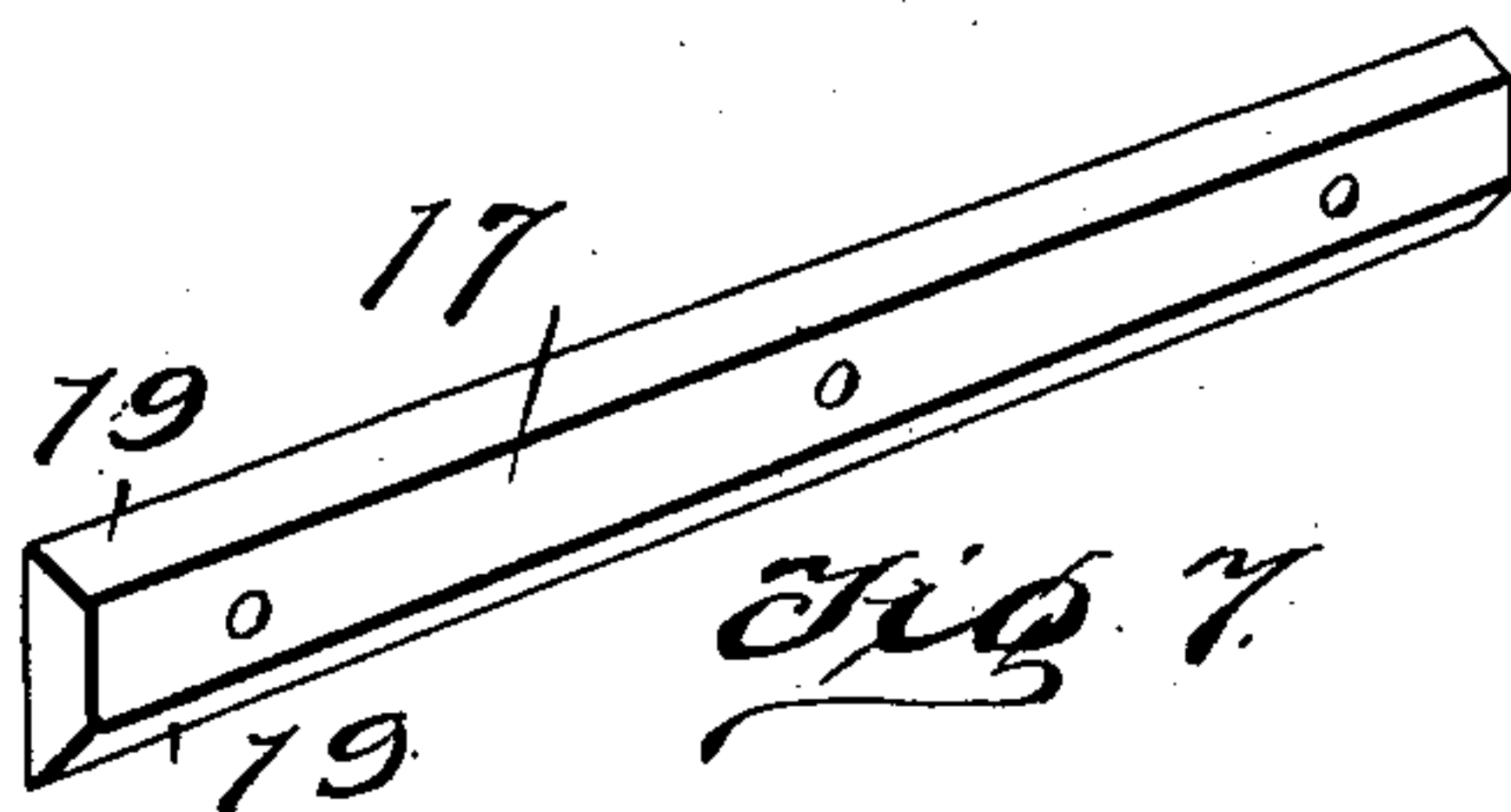
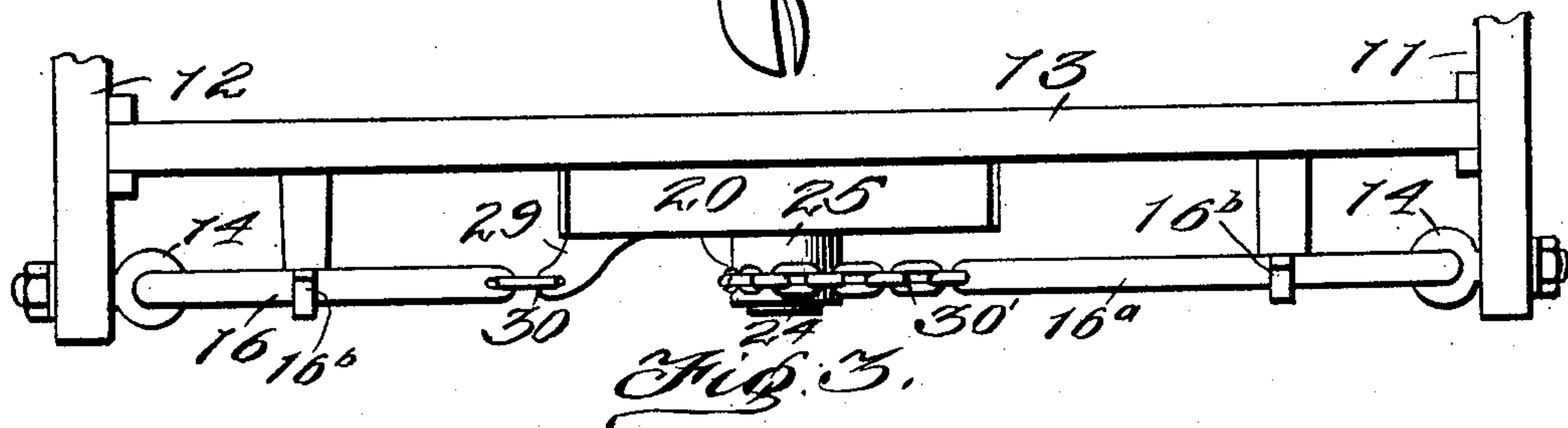
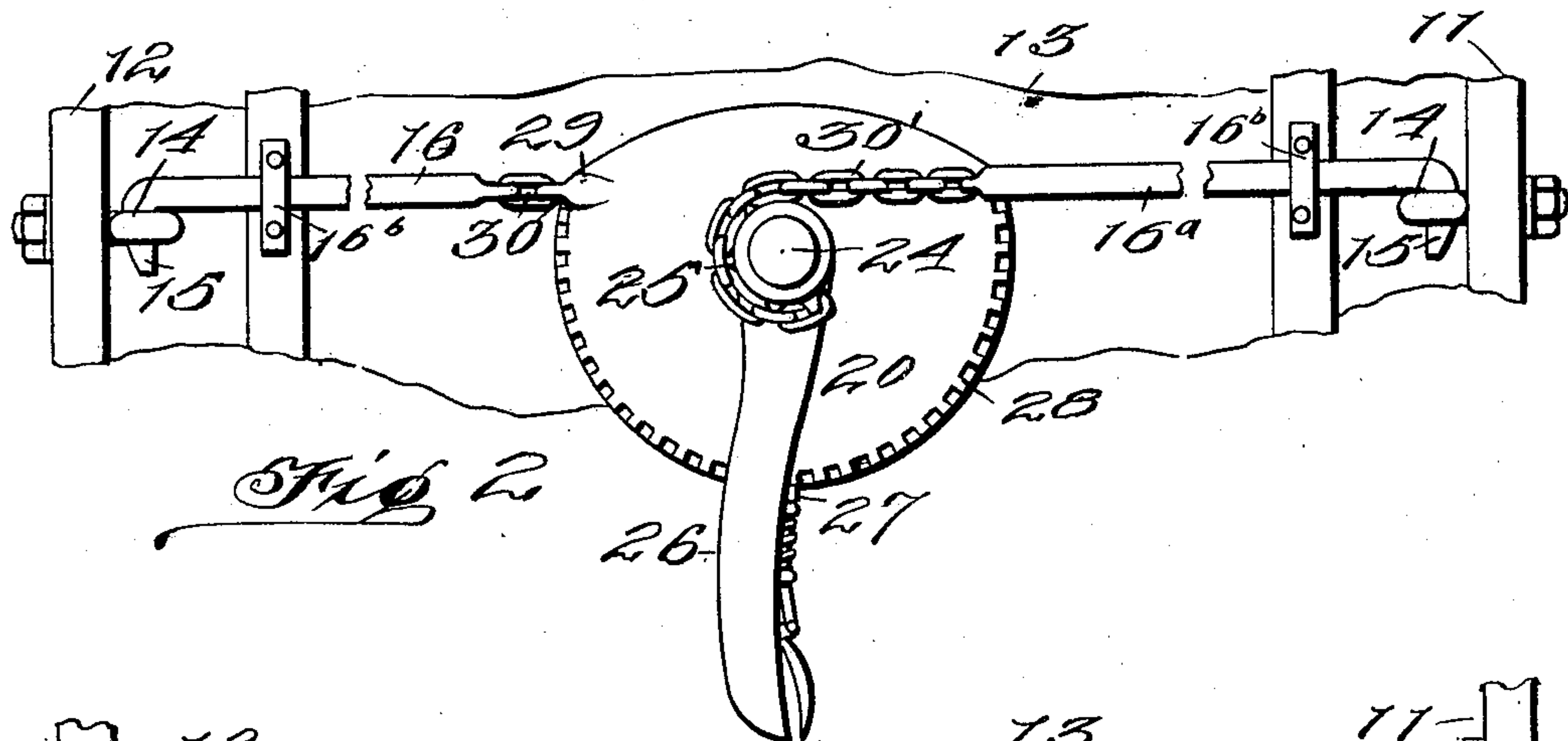
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WITNESSES
Geo. L. Thorne
E. L. Chandler

INVENTOR
Joseph H. Halder.
By *Woodward & Chandler*
Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH H. HALDER, OF LAURENS, IOWA.

END-GATE FASTENER.

No. 896,724.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed October 25, 1907. Serial No. 399,076.

To all whom it may concern:

Be it known that I, JOSEPH H. HALDER, a citizen of the United States, residing at Laurens, in the county of Pocahontas and State of Iowa, have invented certain new and useful Improvements in End-Gate Fasteners, of which the following is a specification.

This invention relates to carriages and wagons, and more particularly to wagon box-rods, or end-gate fasteners.

The object of this invention is to provide a fastener of this character which will be simple in construction, effective for the purpose and which may be quick in its adjustment.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an end elevation of a wagon provided with my invention, Fig. 2 is an enlarged view of the fastener and portion of the wagon side boards, Fig. 3 is a top plan view, Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 1. Fig. 5 is a detail perspective view of the rack bar, Fig. 6 is a detail view of the lever for co-engagement with the rack bar, Fig. 7 is a detail perspective of the supporting bar for the rack bar.

Referring now more particularly to the drawings, there is shown a wagon body including a pair of side boards 11 and 12 and an end gate 13. Through each of the side boards 11 and 12 there is engaged an eye-bolt 14. The eye-bolts have engaged therein, the hooked ends 15 of horizontally extending rods 16 and 16^a which are slidable in guides 16^b which are secured to the end gate 13.

A bar 17 is secured by means of bolts 18 to the end gate 13, and this bar has its upper and lower edges beveled, as shown at 19. A plate 20 is slidably arranged upon the bar 17, and this plate is provided with a longitudinally extending groove 22, the walls of which are beveled outwardly, as shown at 23, and this passage is thus formed to conform to the bar 17. The plate 20 is provided with an

outwardly projecting pin 24, and rotatably mounted upon this pin there is shown a spool 25, and secured to this spool, there is shown a lever 26 having a pawl 27. The plate 20 is provided with rack teeth 28, and these rack teeth are arranged for coöperation with the pawl 27. The plate 20 is provided with an ear 29, and secured to this ear, there is shown an eye 30 which is formed on one end of the rod 16.

A chain or other flexible connection 30' has one of its ends secured to the spool 25, and the other end of this chain is secured to the rod 16^a.

It will thus be seen, that when it is desired to tighten the side boards 11 and 12 to secure the end gate 13 therebetween, the hooked ends 15 of the rods 16 and 16^a, are first engaged with the eye-bolts 14, and afterwards, the lever 26 is turned to wind the chain 30' upon the spool 25, and in this movement of the chain, the rod 16^a will be drawn inwardly and toward the center of the end gate 13, and after the rod 16^a has been drawn inwardly to nearly its fullest extent, a further turn of the lever will of course result in a pull upon the bar 16, whereupon the plate 20 will travel upon the bar 17, until the tension on the rods 16 and 16^a is the same, and the end gate thus securely held between the side boards 11 and 12 respectively.

What is claimed is:

1. The combination with a wagon body including its side boards and end gate, of a plurality of rods engaged at their outer ends with the side boards, a slidable plate carried by the end gate, connections between the rods and said plate, and means carried by said plate for moving one of said rods toward and away from the other of said rods.

2. The combination with a wagon body including its side boards and end gate, of a slidable plate carried by the end gate, a plurality of horizontally disposed rods carried by the plate, said rods having their outer ends removably engaged with the side boards, and means carried by said plate for moving one of said rods toward and away from the other of said rods.

3. The combination with a wagon body including its side boards and end gate, of a plurality of rods engaged at their outer ends with the side boards, a slidable plate carried

by the end gate, one of said rods having its inner end loosely connected with said plate, a revoluble lever carried by the plate, a flexible connection between the lever and the
5 other of said rods, and means for holding the lever locked with said plate for holding the rods in their adjusted position.

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

JOSEPH H. HALDER.

Witnesses:

A. L. BURCH,
E. P. LOWRY.