

No. 732,815.

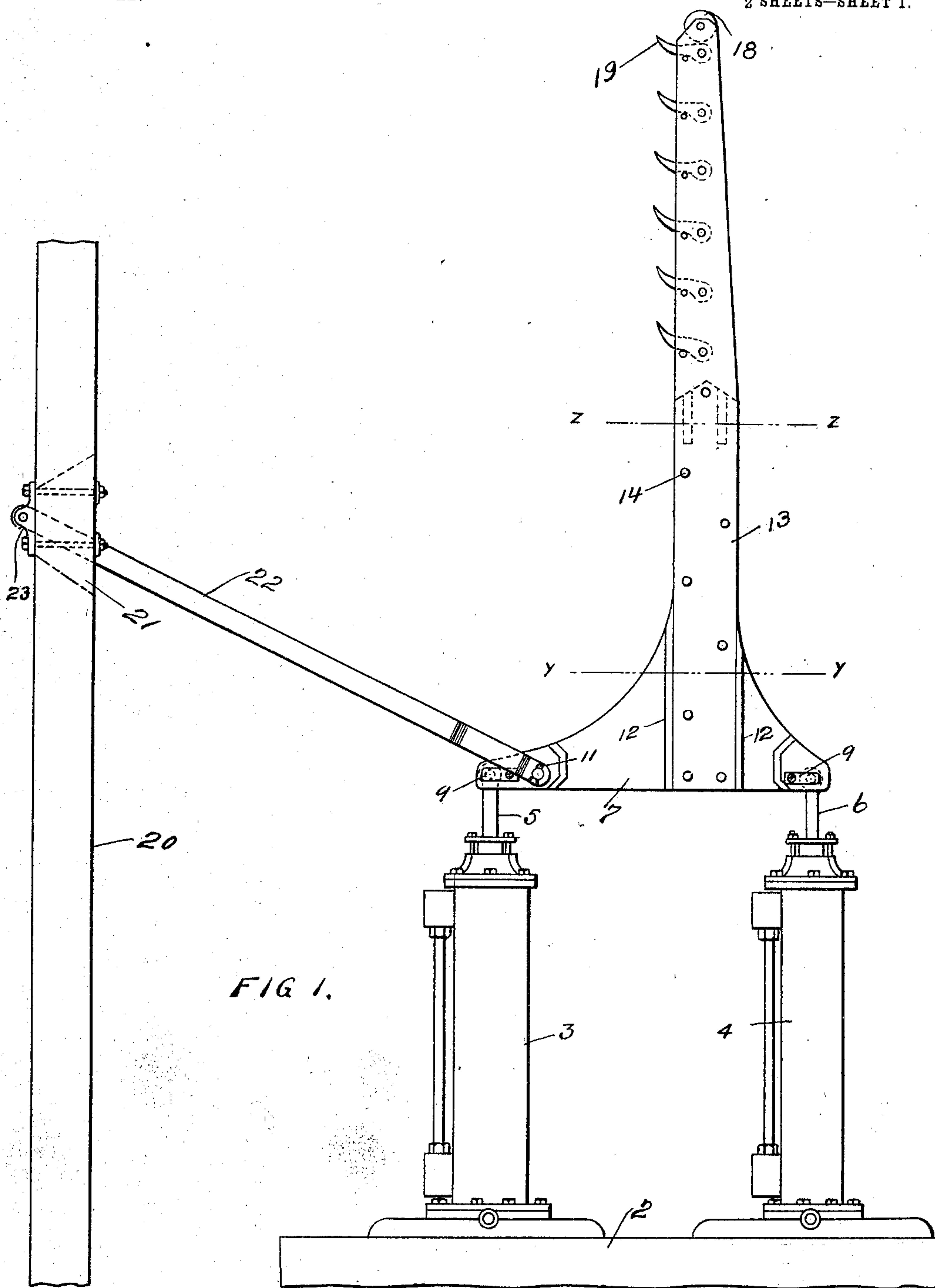
PATENTED JULY 7, 1903.

J. H. E. AUGER.  
NIGGER BAR.

APPLICATION FILED JUNE 14, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
O. E. Hanson  
M. J. Homan

Inventor  
Joseph H. E. Auger  
By Paul H. Paul  
His Attorneys

No. 732,815.

PATENTED JULY 7, 1903

J. H. E. AUGER.  
NIGGER BAR.

APPLICATION FILED JUNE 14, 1902.

NO MODEL.

2 SHEETS—SHEET 2.

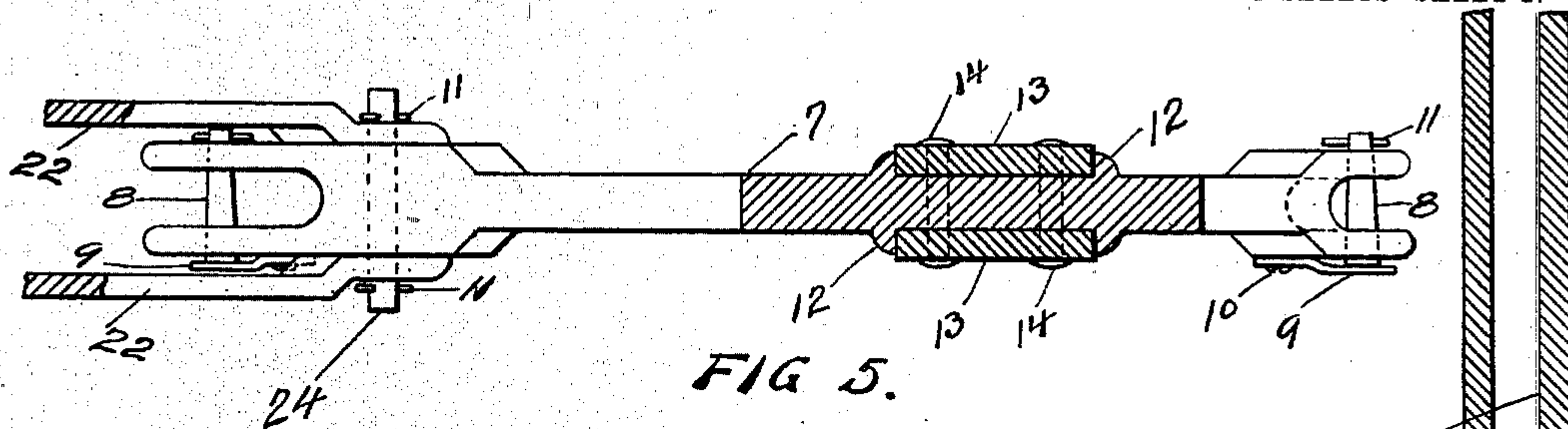


FIG. 5.

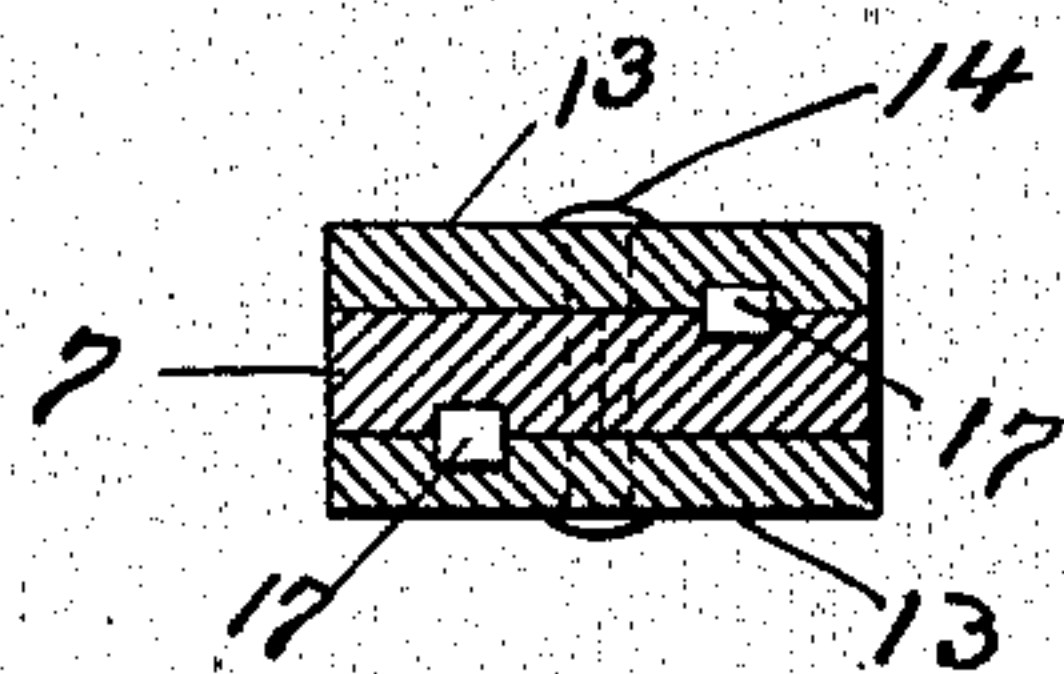


FIG. 6.

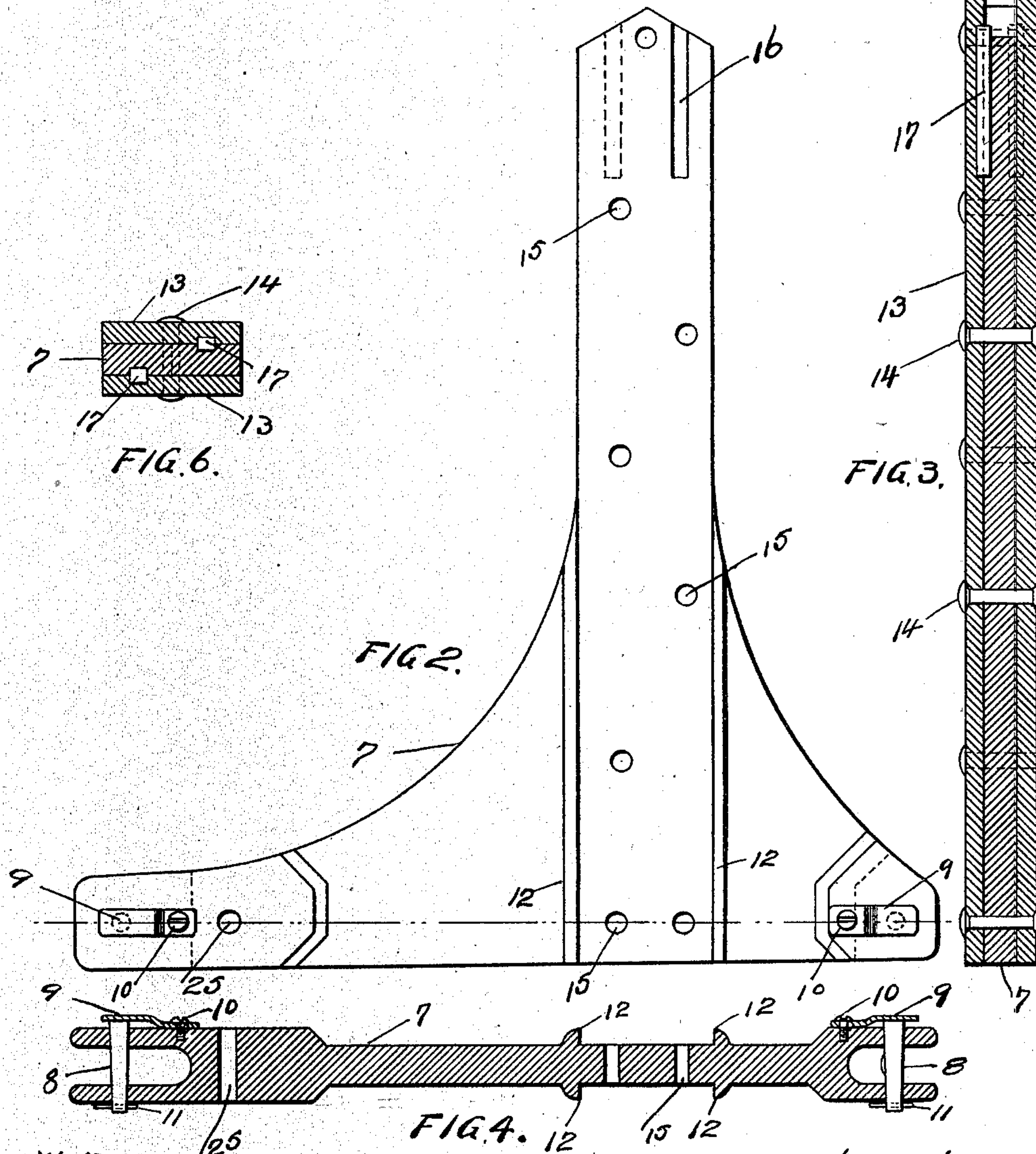


FIG. 2.

FIG. 3.

FIG. 4.

Witnesses.  
*O. L. Hanson.*  
*M. J. Parnau.*

Inventor  
*Joseph H. E. Auger*  
By *Paul H. Paul*  
His Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH H. E. AUGER, OF BRAINERD, MINNESOTA, ASSIGNOR OF ONE-THIRD  
TO ALBERT S. MATTES, OF BRAINERD, MINNESOTA.

## NIGGER-BAR.

SPECIFICATION forming part of Letters Patent No. 732,815, dated July 7, 1903.

Application filed June 14, 1902. Serial No. 111,808. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. E. AUGER, of Brainerd, Crow Wing county, Minnesota, have invented certain new and useful Improvements in Nigger-Bars, of which the following is a specification.

The invention relates to sawmill machinery, and particularly to the mechanism employed for transferring logs from the deck to the carriage.

In steam nigger-bars as usually constructed the side bars are split or forked where they are joined to the butt and are weakened thereby to such an extent that breakages frequently occur, and owing to the number of rivets necessarily used the repairs are tedious and expensive.

The object, therefore, of my invention is to secure the side bars to the butt in such a way that a large number of rivets usually employed may be dispensed with and there will be no weak points to give way when the bar is subjected to the usual pounding or jarring strain.

Other objects of the invention will appear from the following detailed description.

The invention consists generally in providing a nigger-bar butt with vertical ribs, between which the side bars are secured.

Further, the invention consists in providing keyways in said butt and in the side bars which are adapted to register when the parts are placed together and wherein keys are snugly fitted.

Further, the invention consists in providing improved pivot-pins between the piston-rods and the butt.

Further, the invention consists in improved means for connecting the lead bar to the butt.

Further, the invention consists in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a steam nigger-bar embodying my invention. Fig. 2 is a similar view of the butt with the side bars removed. Fig. 3 is a vertical section through the butt, showing the bars secured thereon. Fig. 4 is a horizontal section on the line  $x x$  of Fig. 2 looking

ing up. Fig. 5 is a section on the line  $y y$  of Fig. 1. Fig. 6 is a section on the line  $z z$  of Fig. 1.

In the drawings, 2 represents a suitable base whereon the engines 3 and 4 are mounted. These engines are provided with the usual pistons with rods 5 and 6, that are connected to the forked ends of the nigger-bar butt 7 by means of the pivot-pins 8. These pins are tapered, as shown, so that they will automatically seat themselves in the pivot-holes, and they are held in place by means of plates 9, secured to the butt by cap-screws 10. The opposite ends of the pins may be provided with spring-cotter pins 11. These pins being tapered will always fit snugly in the holes and will insure a close-fitting connection between the pistons and the nigger-bar butt at all times. Ordinarily straight pivot-pins are used, which soon wear or work loose, causing a loose rattling joint that frequently requires attention and repairs.

Upon each side of the butt 7 I provide vertical ribs 12, forming ways wherein the side bars 13 fit snugly and are secured by rivets 14, passing through holes 15 in said butt. These rivets serve to brace and strengthen the bars against lateral movement even when they are subjected to the most severe and pounding strain of the bar, and I have found this manner of securing and supporting these side bars so effectual that I have been able to dispense with a number of the rivets that heretofore it has been found necessary to employ to secure the side bars firmly to the butt. Instead of providing the butt with the ribs, as described, I may groove the surfaces of the butt to receive the bars; but in that case I should probably prefer to make the butt thicker at that point to avoid any possibility of weakness and danger of breakage.

At the upper end of the butt on each side I prefer to provide a vertical keyway 16, which registers with a similar keyway in the surface of the bar when the bars are placed together, and within each way I provide a key 17, fitting snugly therein and securely bracing and strengthening the upper end of the butt and bars and relieving the shear strain on the rivets during the operation of the nigger-bar. These keys preferably lie one half



within the keyway of the butt and the other half in the keyway of the bars. The side bars extend a considerable distance above the butt, as shown in Fig. 1, and are provided  
5 with the usual wheel 18 and dogs or teeth 19.

Near the cylinders I provide an upright timber 20, having a slot or socket 21 to receive the end of a lead bar 22, pivoted on a block 23. The opposite end of this bar is  
10 forked, as shown in Fig. 5, and is connected to the butt by a straight pin 24, fitting a hole 25 in the butt between the side bars and one of the pivot-pins 8. This lead bar holds the nigger-cylinders and the bar firmly and in an  
15 upright position and in machines of this kind as usually constructed is connected direct to the pin on which the piston-rod of the other cylinder is attached. This manner of connection causes, of course, an additional strain  
20 on the pivot-pin, resulting in greater wear thereon and more frequent breakage. The pin 24 is preferably held in position by spring-cotters, and the pin passing through a thicker portion of the butt forms a very substantial  
25 connection and one that is entirely independent of the connection with the engine-pistons.

The butt is preferably made of cast-steel and can be of any desired width, according to the tooth to be used. The side bars are so  
30 braced and strengthened that there is little probability of breakage and when worn can be readily replaced without drilling new holes in the butt, which is frequently neces-

sary when a breakage occurs in the butt now in general use.

I claim as my invention—

1. A butt for nigger-bars, provided in its opposite sides with elongated vertical grooves or recesses having parallel sides, side bars fitting snugly within said grooves, and means  
40 passing through said bars and butt and securing them together.

2. A nigger-bar butt provided on its opposite sides with vertical parallel ribs, bars fitting snugly between said ribs, and rivets pass-  
45 ing through holes in said bars and said butt and securing them firmly together.

3. A nigger-bar butt, provided in its opposite sides with vertical keyways, side bars having keyways adapted to register with  
50 those in said butt, and keys fitting snugly within said ways and locking said bars against lateral movement.

4. A nigger-bar butt, provided with vertical ribs and keyways in its opposite sides,  
55 bars fitting snugly between said ribs and having keyways to register with those in said butt, keys fitting snugly within said ways, and rivets passing through said bars and said  
60 butt.

In witness whereof I have hereunto set my hand this 10th day of June, 1902.

JOSEPH H. E. AUGER.

In presence of—

S. F. ALDERMAN,  
W. H. MANTOR.