

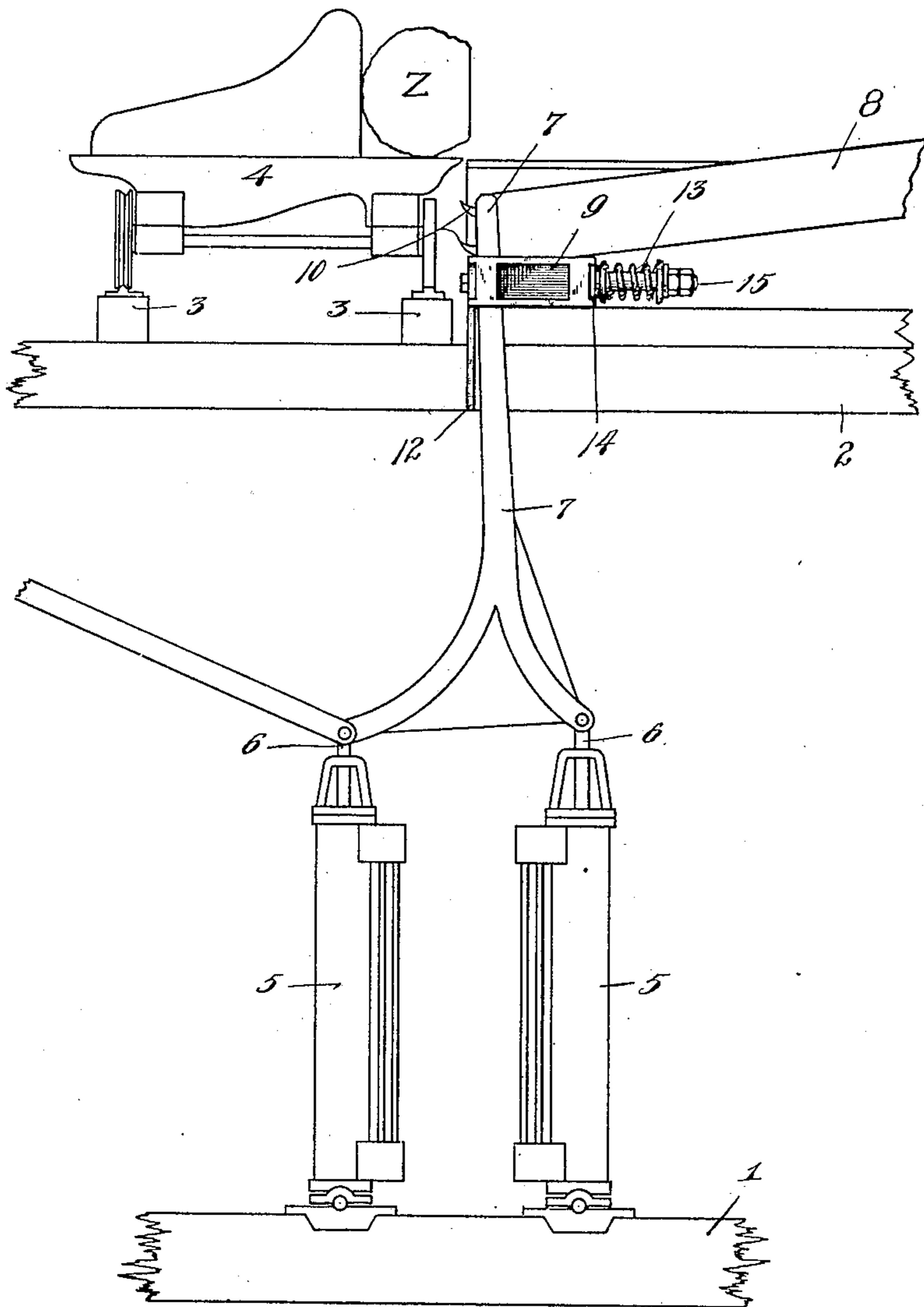
J. A. GILLARD.
SAWMILL NIGGER.
APPLICATION FILED MAR. 6, 1906.

913,640.

Patented Feb. 23, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.

E. W. Jeppesen.

A. H. Opsahl.

Inventor.

Joseph A. Gillard.
By his Attorneys.

Williamson & Merriam

913,640.

J. A. GILLARD.
SAWMILL NIGGER.
APPLICATION FILED MAR. 8, 1905.

Patented Feb. 23, 1909.
2 SHEETS—SHEET 2.

Fig. 2.

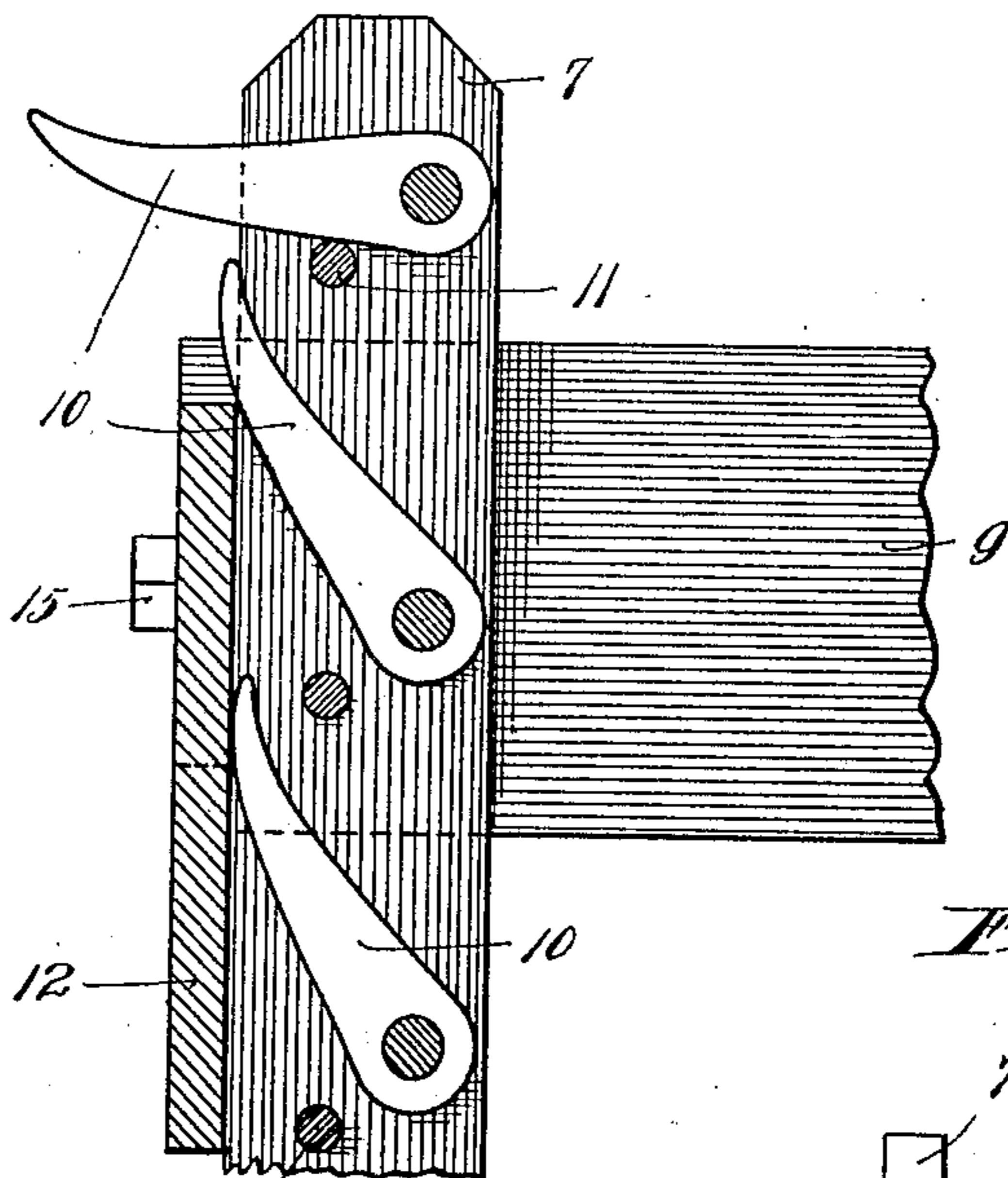


Fig. 3.

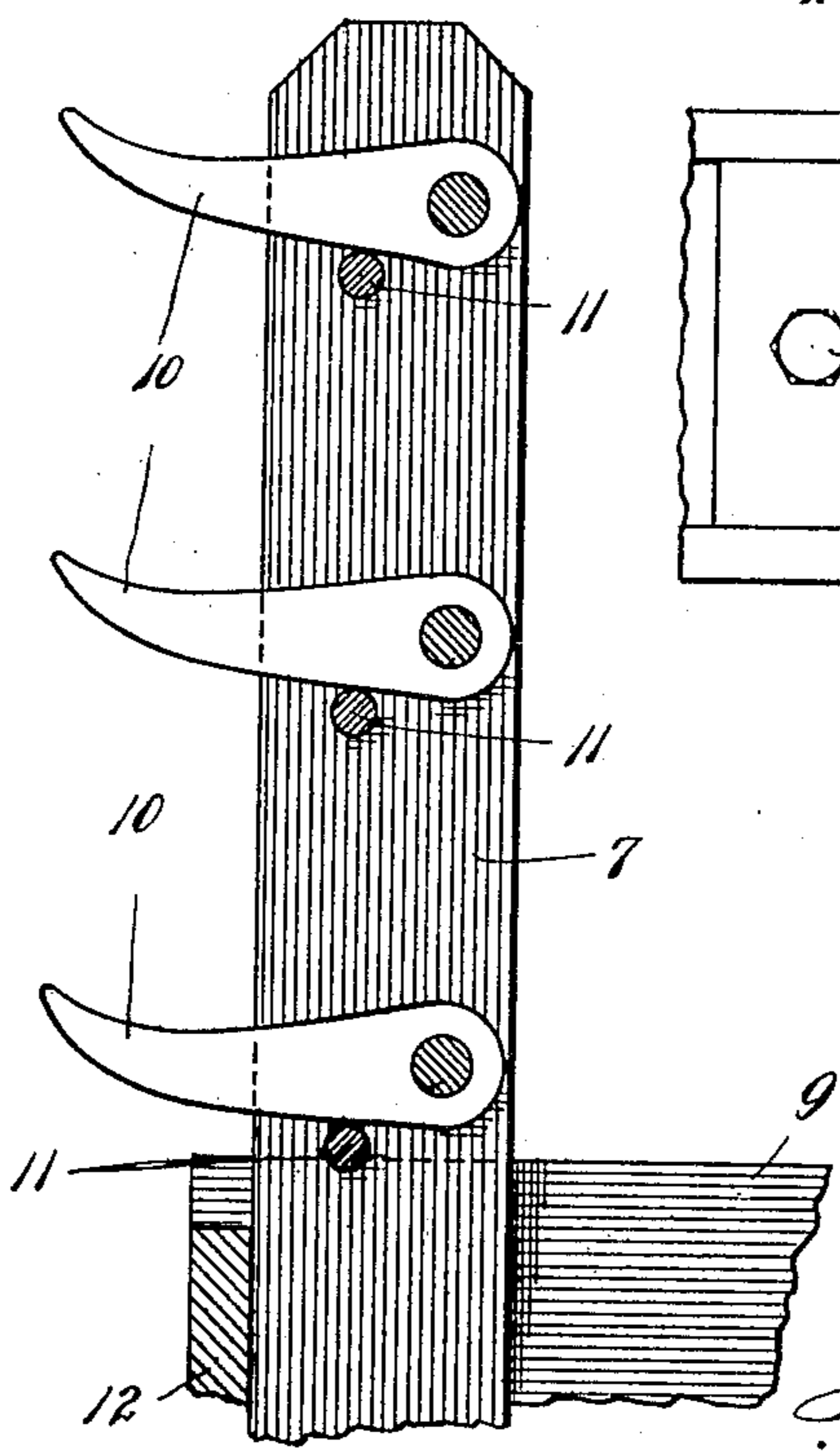
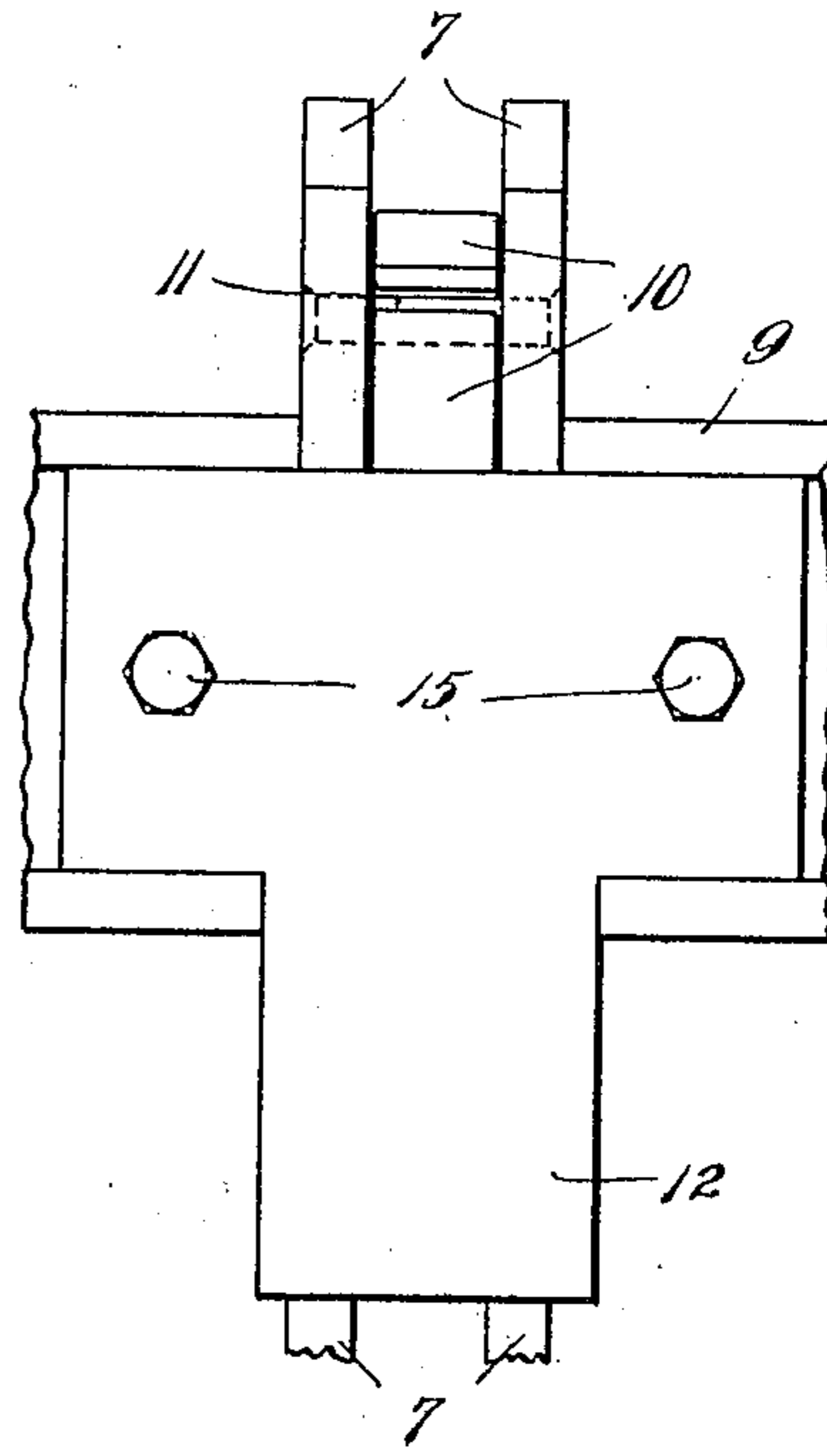


Fig. 4.



Witnesses.
E. W. J. J. J. J.
A. H. Opsahl.

Inventor.
Joseph A. Gillard.
By his attorney.
Williamson & Merchand

UNITED STATES PATENT OFFICE.

JOSEPH A. GILLARD, OF WINTON, MINNESOTA.

SAWMILL-NIGGER.

No. 913,640.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed March 6, 1905. Serial No. 248,457.

To all whom it may concern:

Be it known that I, JOSEPH A. GILLARD, citizen of the United States, residing at Winton, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Sawmill-Niggers; and I do hereby 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.

My invention relates to what is generally known in the trade as "double cylinder steam niggers", and has for its especial object to improve the nigger bar cushion mechanism thereof.

To the above ends, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate my invention, like characters indicate like parts throughout the several views.

Figure 1 is a view in elevation, showing my improved device applied to a steam nigger, and showing also a log carriage, said parts being chiefly shown in diagram. Figs. 2 and 3 are views in transverse vertical section, showing portions of the toothed nigger bar, of the floor plate, and of the front stop bar; and Fig. 4 is a front elevation of the parts shown in Figs. 2 and 3, some parts being broken away.

The numeral 1 indicates the floor of one story, and the numeral 2 the floor of an overlying story, upon which floor 2 are secured rails 3 over which runs the usual log carriage 4.

The character *z* indicates a log located on the carriage 4.

The numeral 5 indicates the cylinders of a pair of straight line reciprocating engines, mounted at their lower ends on the floor 1, and having the upwardly projecting ends of their piston rods 6 connected to the lower prongs of a nigger bar 7, which nigger bar works upward through the floor 2, with its upper end located in the vicinity of the lower edge of the usual inclined log deck 8.

The numeral 9 indicates a bifurcated bracket, usually designated as the floor plate of the nigger bar cushion. The nigger bar 7, at least at its upper portion, is made up of a pair of laterally spaced flat bars to, and between which, are pivoted a plurality of teeth or dogs 10. Stop pins or similar de-

vices 11 rigidly connect the laterally spaced members of the nigger bar 7; and these are located in position to limit the downward movements of the teeth 10, when the same are projected for action on the log.

The upper portion of the nigger bar 7 works freely through the bifurcated floor plate or bracket 9, and when thrown forward, bears against a vertically disposed flat T-shaped stop plate 12 which is removably secured to the floor plate or bracket 9. Hitherto it has been customary to section or form the stop plate in two parts, so spaced that the teeth of the nigger bar project therethrough. With such construction, the friction between the nigger bar and the stop plate rapidly wears both away, and produces beveled edges on both thereof.

My improved stop plate forms a complete and continuous bearing surface for the forward edge of the nigger bar and, under downward movements of the said nigger bar, causes the pivoted teeth or dogs 10 to turn upward and backward between the laterally spaced members of the said nigger bar, as shown in Fig. 2. Under an upward movement of the nigger bar, the said teeth or dogs are held in retracted positions until they are carried above the stop plate 12, whereupon, one after the other, they are permitted to drop pivotally into operative positions shown in Fig. 3.

The numeral 13 indicates the cushioning springs, which react in the usual way on a rear stop plate 14 and on long nutted bolts 15, which bolts act yieldingly to hold the outer stop plate 12 in working position. The said stop plate 12, at its central portion, is extended downward, so that it will act upon all of the dogs 10 under the lowermost position of the nigger bar.

From the foregoing description, it will be seen that the stop plate 12 serves two important novel functions; to wit, first, by reason of its broad flat surface which is in engagement with the nigger bar during the reciprocatory movement of the latter it prevents the rapid wear between the bar and the plate which is a common objection in the former types of guides, such wear resulting in the beveling of the edges of the old types of bifurcated or divided guide plates as well as the edges of the nigger bar, thereby causing the nigger bar frequently to wedge or chock in the worn plate; second, the plate 9 being extended downward for a considerable dis-

5 tance forms an elongated bearing surface for the nigger bar and also the engaging surface for all of the teeth 10 on the nigger bar which lie below the upper edge of said plate, thereby preventing any of said teeth from passing below the lower edge of the plate.

What I claim and desire to secure by Letters Patent of the United States is as follows:

10 1. In a device of the character described, for reciprocating and oscillating the same, said nigger bar having pivoted teeth projecting therefrom, of a floor bracket through which said nigger bar is mounted to work, and a flat stop plate applied to said bracket 15 and extending across the front edge of said nigger bar and with which the teeth of said bar engage, and which stop plate extends downward to a point as low as the position occupied by the lowermost tooth of said bar 20 under the lowermost position of said bar, substantially as described.

25 2. In a device of the character described, the combination with a nigger bar 7 and means for reciprocating the same, the upper

portion of said nigger bar being bifurcated and provided with pivoted dogs working in the bifurcations thereof, a bifurcated floor plate 9 anchored to a suitable support and through the bifurcation of which said nigger 30 bar works freely, a flat T shaped stop plate 12 removably secured to said floor plate 9 and projecting below said floor plate, said T shaped stop plate 12 spanning the nigger bar passage of said floor plate, thereby affording 35 a bearing for the forward portion of said nigger bar, and serving to force said pivoted dogs into retracted positions under the downward movement of said bar, and to hold said pivoted dogs in their retracted positions until 40 said bar is again moved upward and out of the said floor plate, substantially as described.

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

JOSEPH A. GILLARD.

Witnesses:

G. F. WENTWORTH,
ALFRED JUHRE.