

No. 645,796.

Patented Mar. 20, 1900.

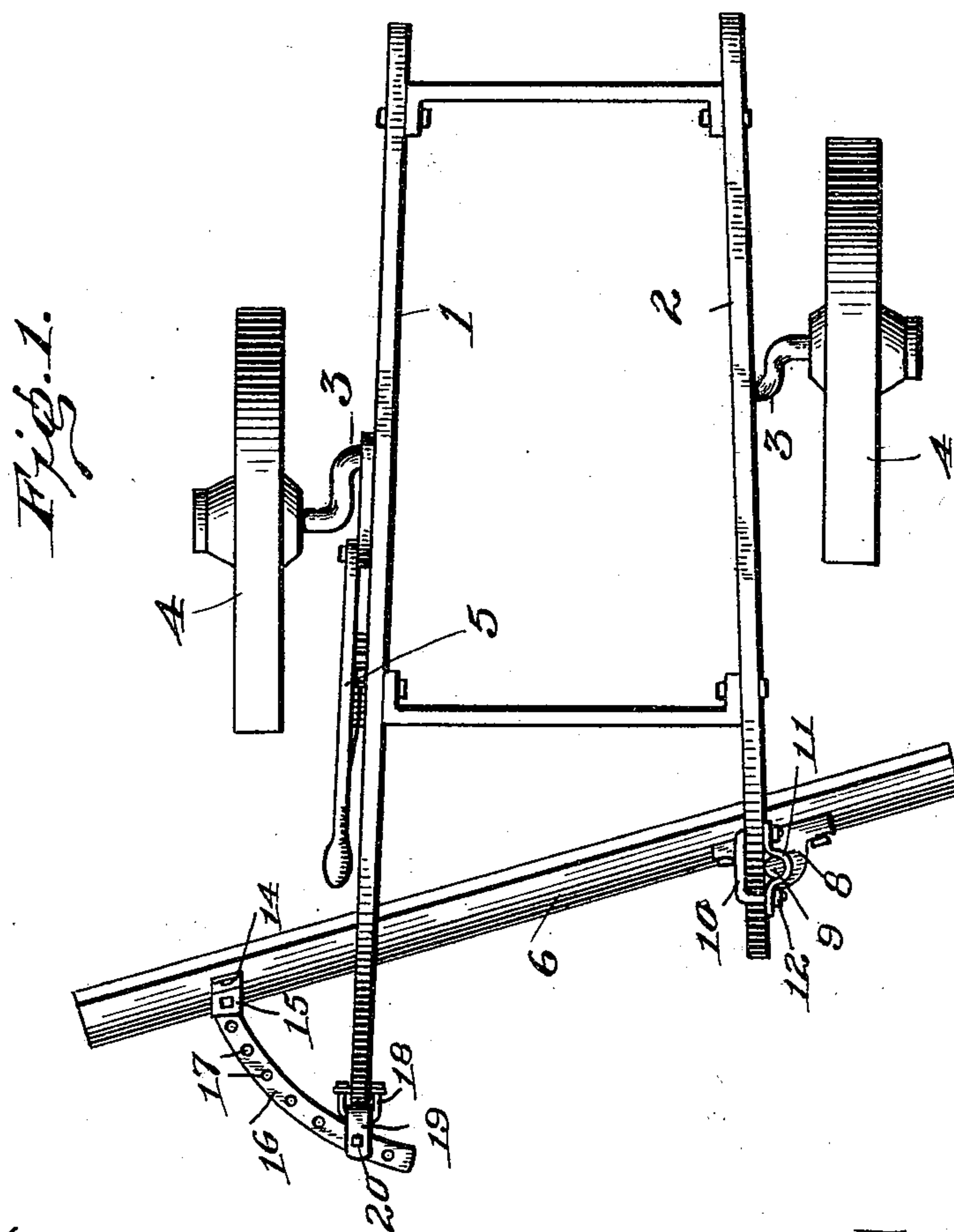
N. ECKSTEIN.

SCRAPER ATTACHMENT FOR GANG PLOWS.

(Application filed Nov. 28, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 2.

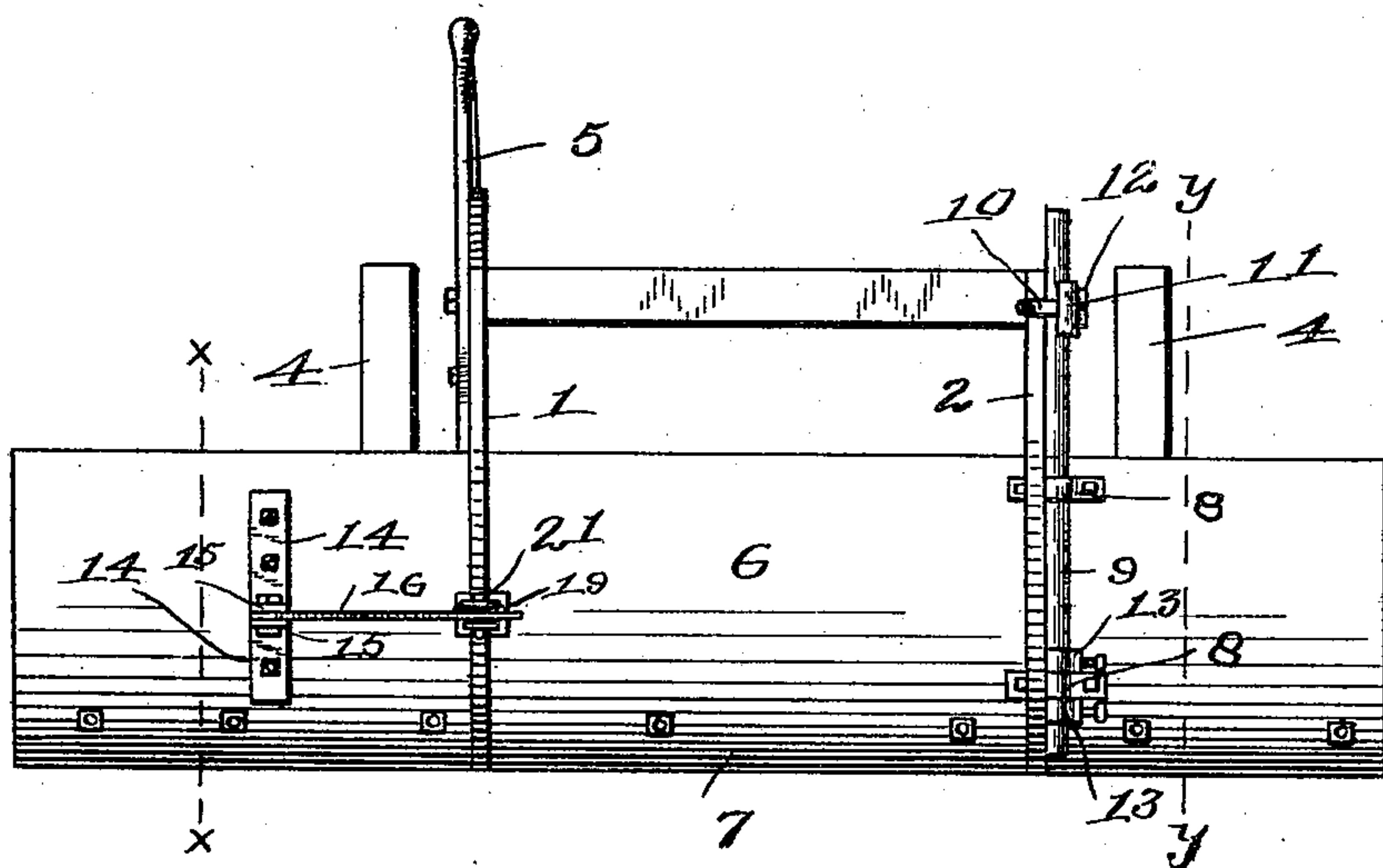


Fig. 3.

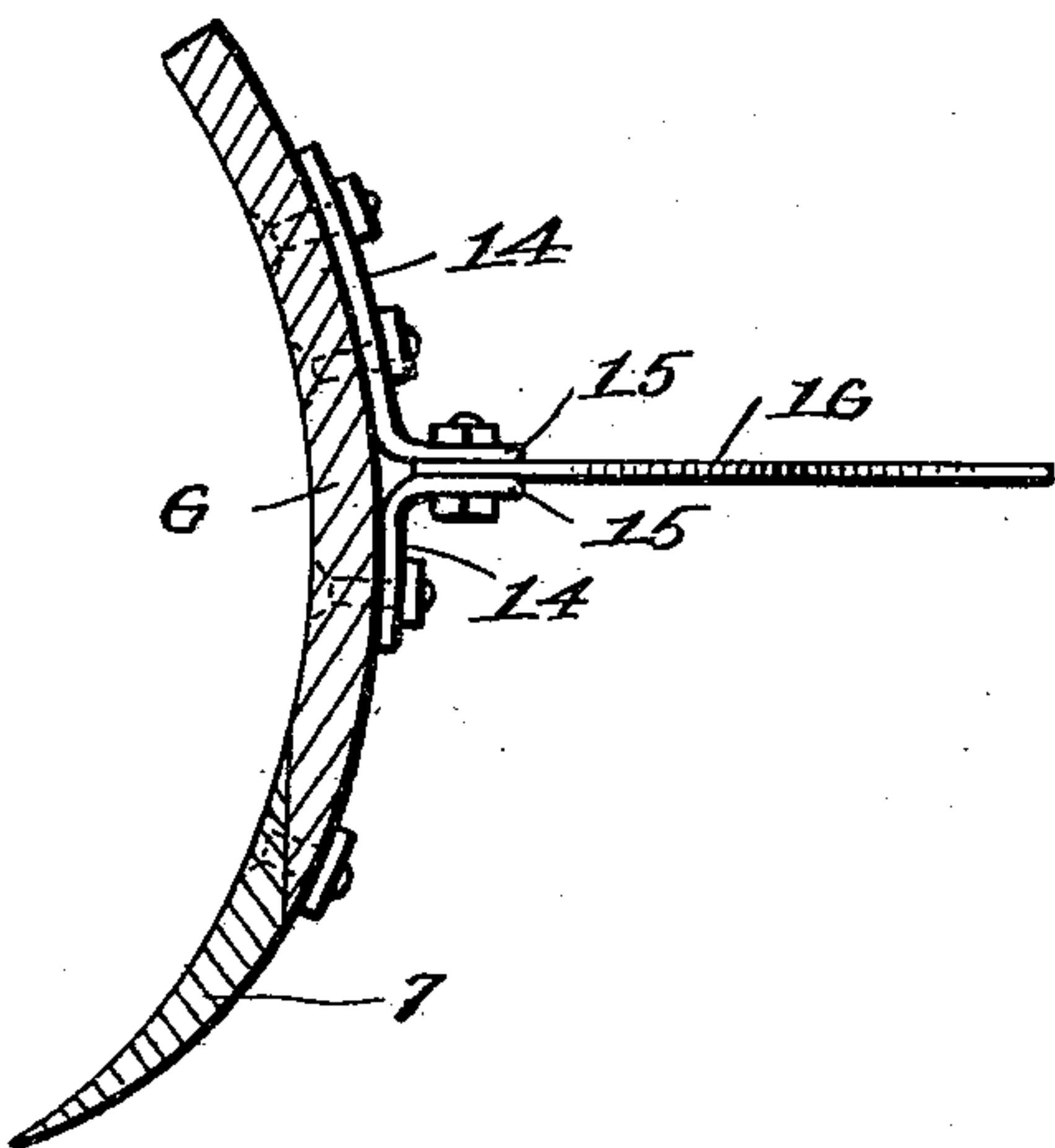
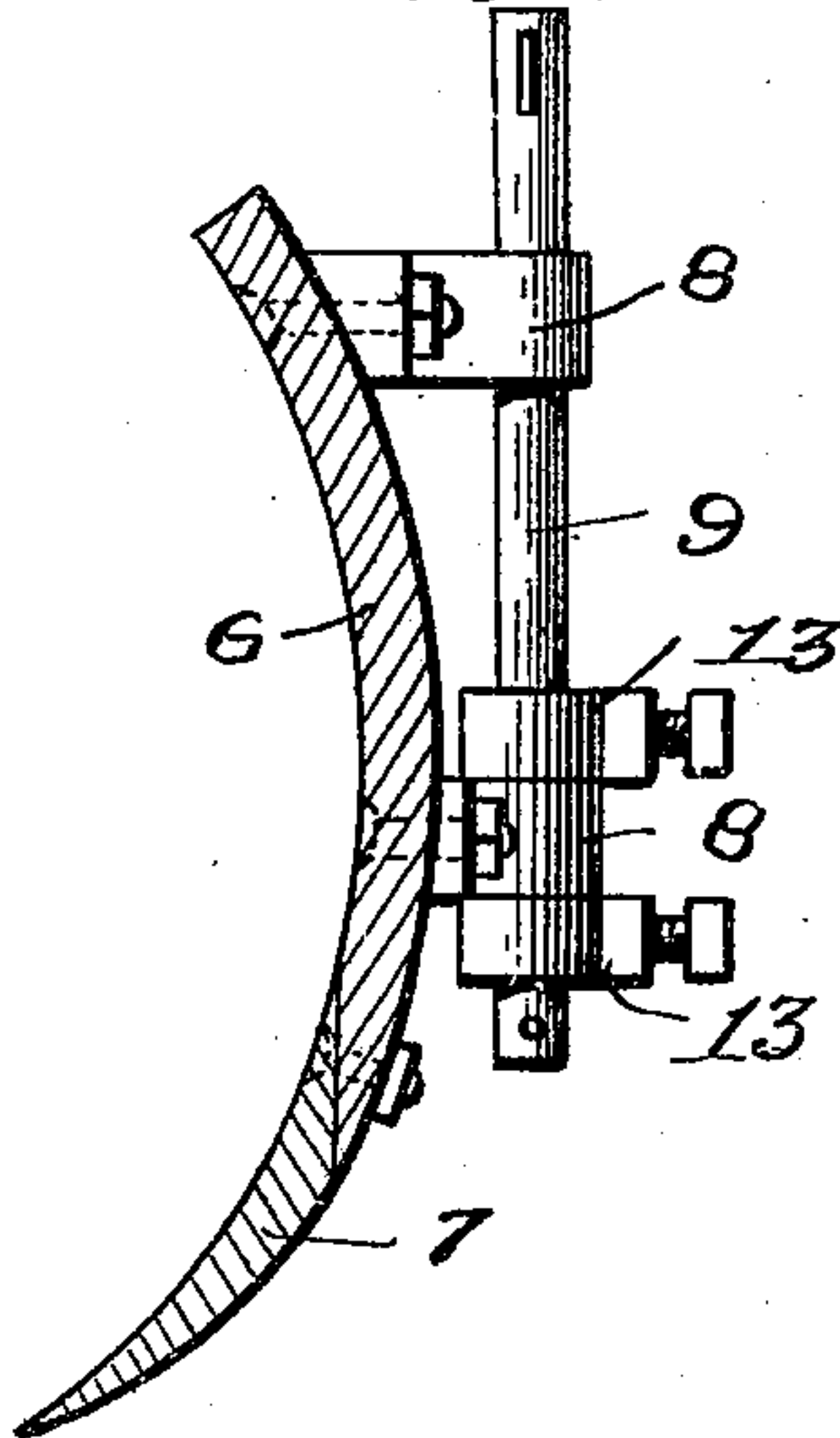


Fig. 4.



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UNITED STATES PATENT OFFICE.

NICKOLAUS ECKSTEIN, OF WYLIE, MINNESOTA.

SCRAPER ATTACHMENT FOR GANG-PLOWS.

SPECIFICATION forming part of Letters Patent No. 645,796, dated March 20, 1900.

Application filed November 28, 1899. Serial No. 738,564. (No model.)

To all whom it may concern:

Be it known that I, NICKOLAUS ECKSTEIN, a citizen of the United States, residing at Wylie, in the county of Red Lake and State of Minnesota, have invented new and useful Improvements in Scraper Attachments for Gang-Plows, of which the following is a specification.

The object of my invention is to provide a scraper attachment for gang-plows by means of which an effective ditcher is produced.

The invention resides in the particular means employed for connecting the scraper-blade to the plow-beams, by means of which the angle of said blade to the line of draft may be adjusted.

The details of the invention will hereinafter appear, and the novel features thereof will be defined in the claims.

In the drawings forming part of this specification, Figure 1 is a plan view showing my invention applied. Fig. 2 is a rear elevation of the same. Fig. 3 is a section on the line *x x* of Fig. 2, and Fig. 4 is a section on the line *y y* of Fig. 2.

Like reference-numerals indicate like parts in the different views.

The plow-beams 1 and 2 are of the usual form and construction, being pivoted to the arched portion of a crank-axle 3, on which the supporting-wheels 4 4 are mounted at their outer ends. These beams are adapted to be raised and lowered in the usual manner by means of the levers 5. The rear ends of the plow-beams 1 and 2 are curved downwardly and forwardly and ordinarily carry the moldboards. When my scraper attachment, however, is applied, the moldboards are removed, as are also the colters, which are secured to the beams in advance of said moldboards.

The scraper 6 is concavo-convex in shape, as shown, and is provided with a removable share or point 7. Upon the rear or convex side of said scraper and adjacent to the right-hand end thereof are secured bearings 8 for a shaft 9, which extends in a substantially-vertical line therethrough. When the scraper is applied, the lower end of the shaft 9 is secured by a bolt or otherwise to the extreme lower end of the right-hand beam 2, and the upper end of said shaft is secured to the horizontal portion of said beam, adjacent to its

rear end, by means of a clip 10, which embraces said beam, a plate 11, through which the screw-threaded ends of said clip pass, and nuts 12, which fit upon the ends of said clip. By this means it will be seen that the shaft 9 is securely fastened to the plow-beam 2, but that the scraper 6 is capable of oscillating or turning movement on said shaft. In order to prevent the scraper 6 from moving up or down on the shaft 9, adjustable collars 13 13 are secured to said shaft, one on each side of the lower bearing 8. It will be observed that when the scraper is in place it is located in front of the rear end of the beam 2. At a point adjacent to the opposite end of the scraper 6 and on the rear side thereof are secured plates 14 14, each having an outwardly-extending flange 15 thereon. The flanges 15 on said plates are parallel and located in close relation to each other. Pivoted to and located between the flanges 15 is a segmental bar 16, having a series of openings 17 therein preferably arranged at equal distances from each other. By means of this bar the end of the scraper 6 opposite the bearings 8 is secured to the plow-beam 1. Secured to said beam 1 is a clip 18, through the loop or eye of which extends a U-shaped coupling-piece 19, the branches of which are provided with registering openings 20. The free end of the segmental bar 16 passes between the branches of the coupling-piece 19 and is adjustably secured thereto by means of a pin or bolt 21, which extends through the openings 20 in the branches of said coupling-piece and through one of the openings 17 in said segmental bar. It will of course be understood that the bar 16 may be connected to the coupling-piece 19 through any one of the openings 17 therein. In this way the angle of the scraper 6 to the line of draft of the plow may be controlled and a ditch of greater or less width produced. The depth of the ditch may be controlled by raising or lowering the beams 1 and 2 through the agency of the lever 5.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the beams of a gang-plow, of a scraper, a shaft secured to one of said beams and pivoted to said scraper, and a segmental bar pivoted to said scraper

and adjustably secured to the other of said beams.

2. The combination with the beams of a gang-plow, of a scraper, bearings secured to
5 the rear side of said scraper, a shaft mounted in said bearings and secured at its upper and lower ends to one of said beams, flanged plates also secured to the rear side of said scraper,
10 a segmental bar located between and pivoted to the flanges of said plates and provided with a series of openings, a coupling-piece secured to the other of said beams and provided with

registering openings, and a securing device extending through the openings in said coupling-piece and through one of the openings in
15 said bar.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

NICKOLAUS ECKSTEIN.

Witnesses:

H. H. ZAISER,
M. G. WYER.