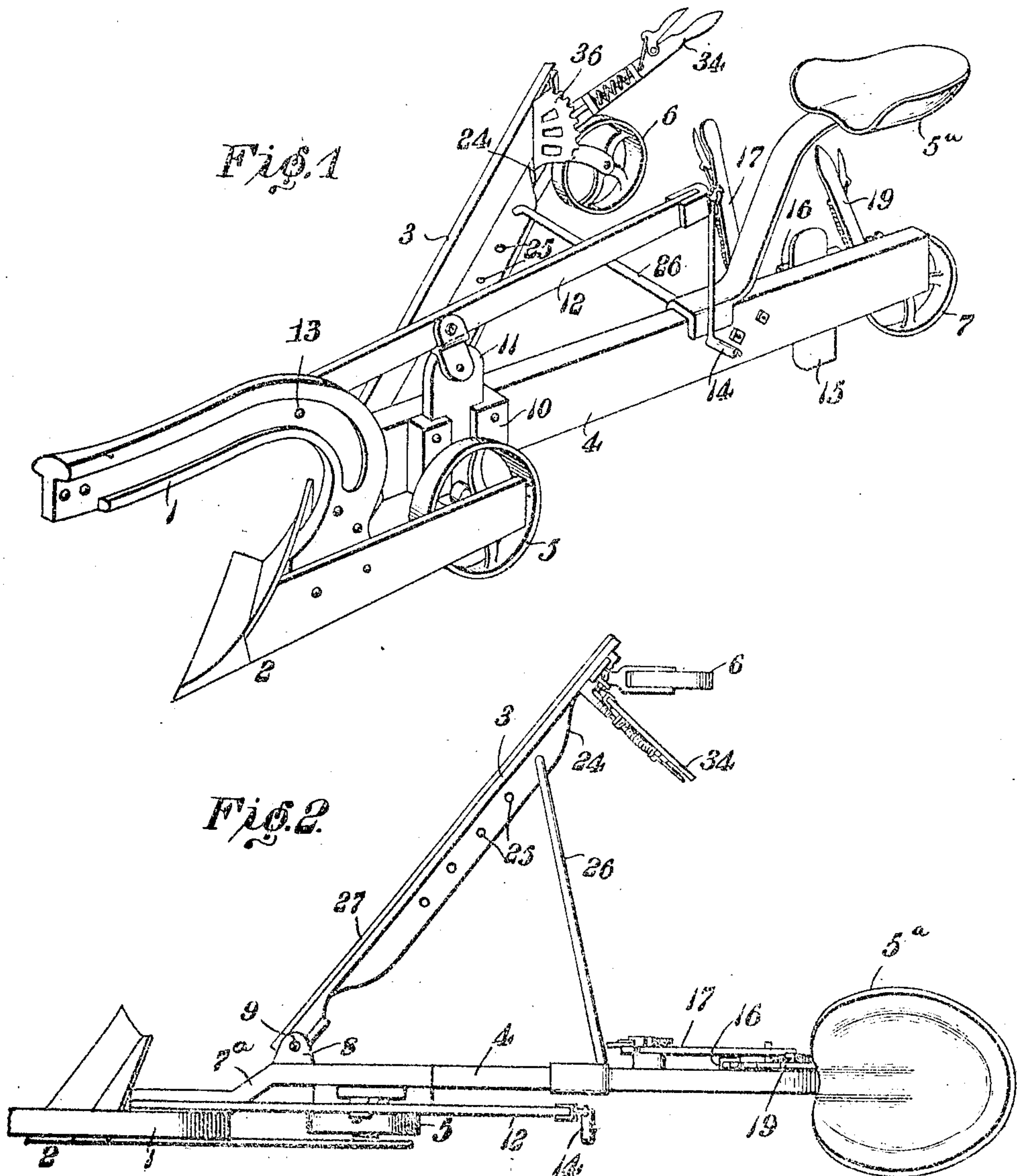


W. A. CAMPBELL.  
 PLOW AND SCRAPER.  
 APPLICATION FILED JUNE 11, 1908.

912,808.

Patented Feb. 16, 1909.

2 SHEETS—SHEET 1.



Witnesses

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354

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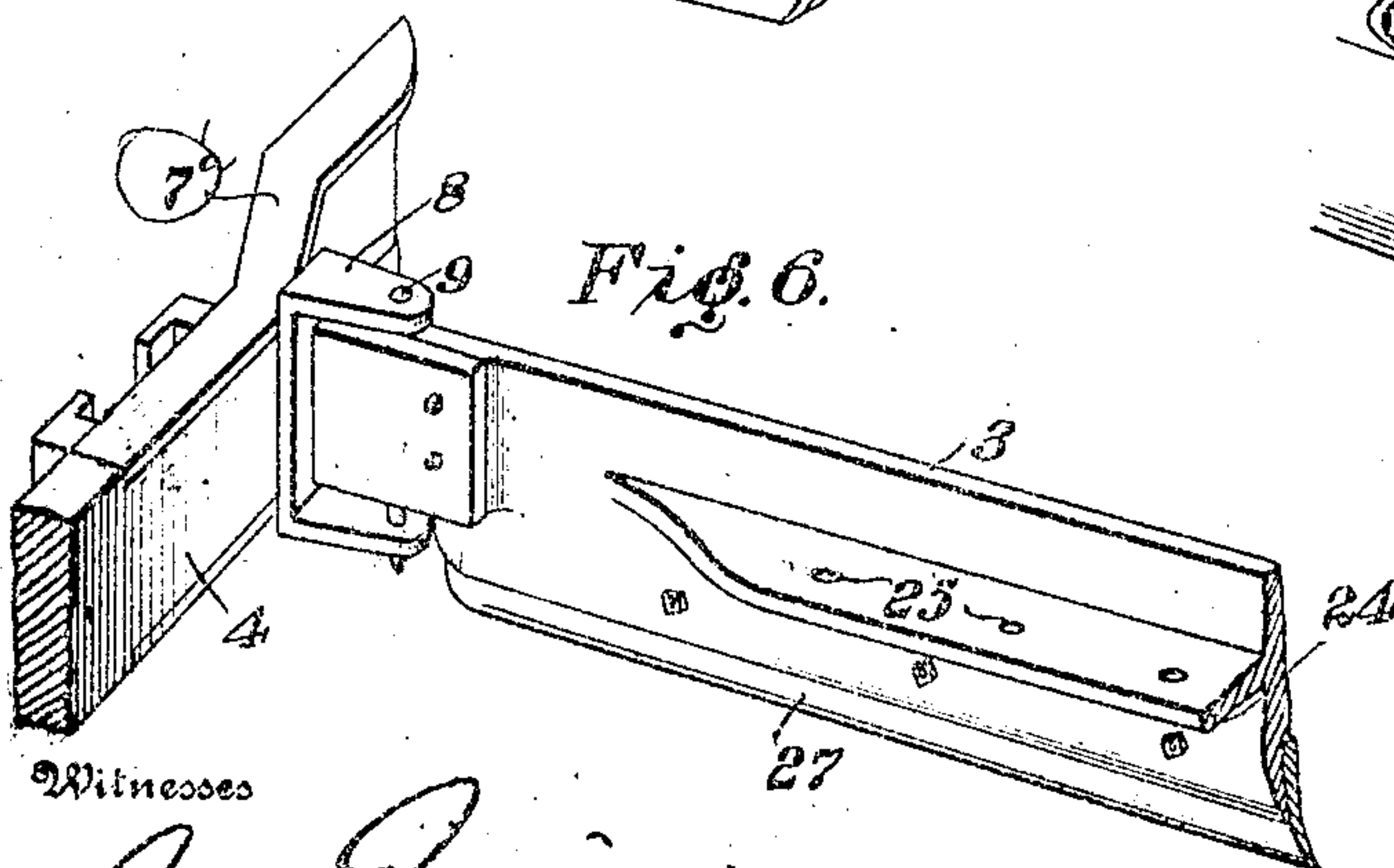
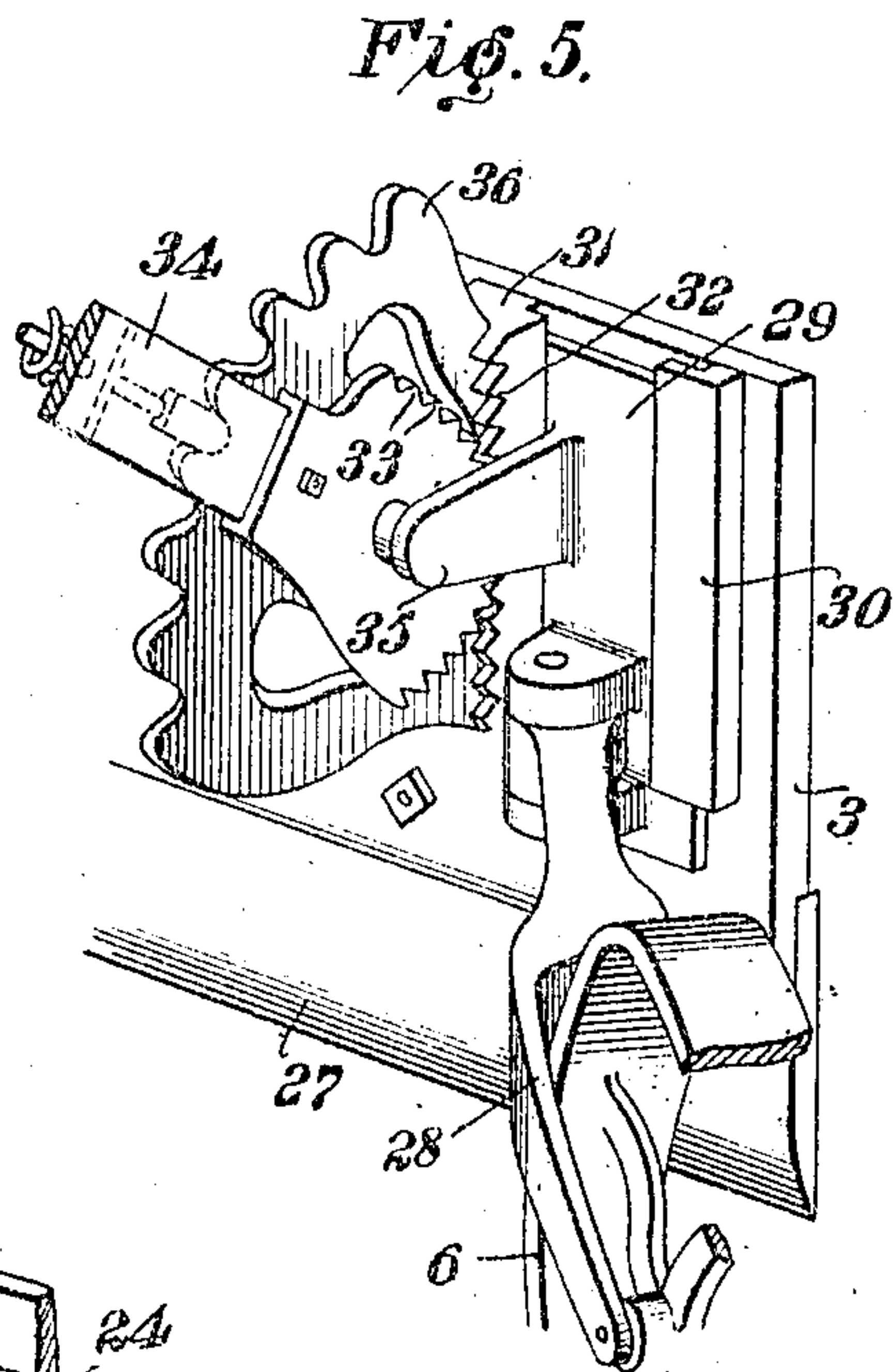
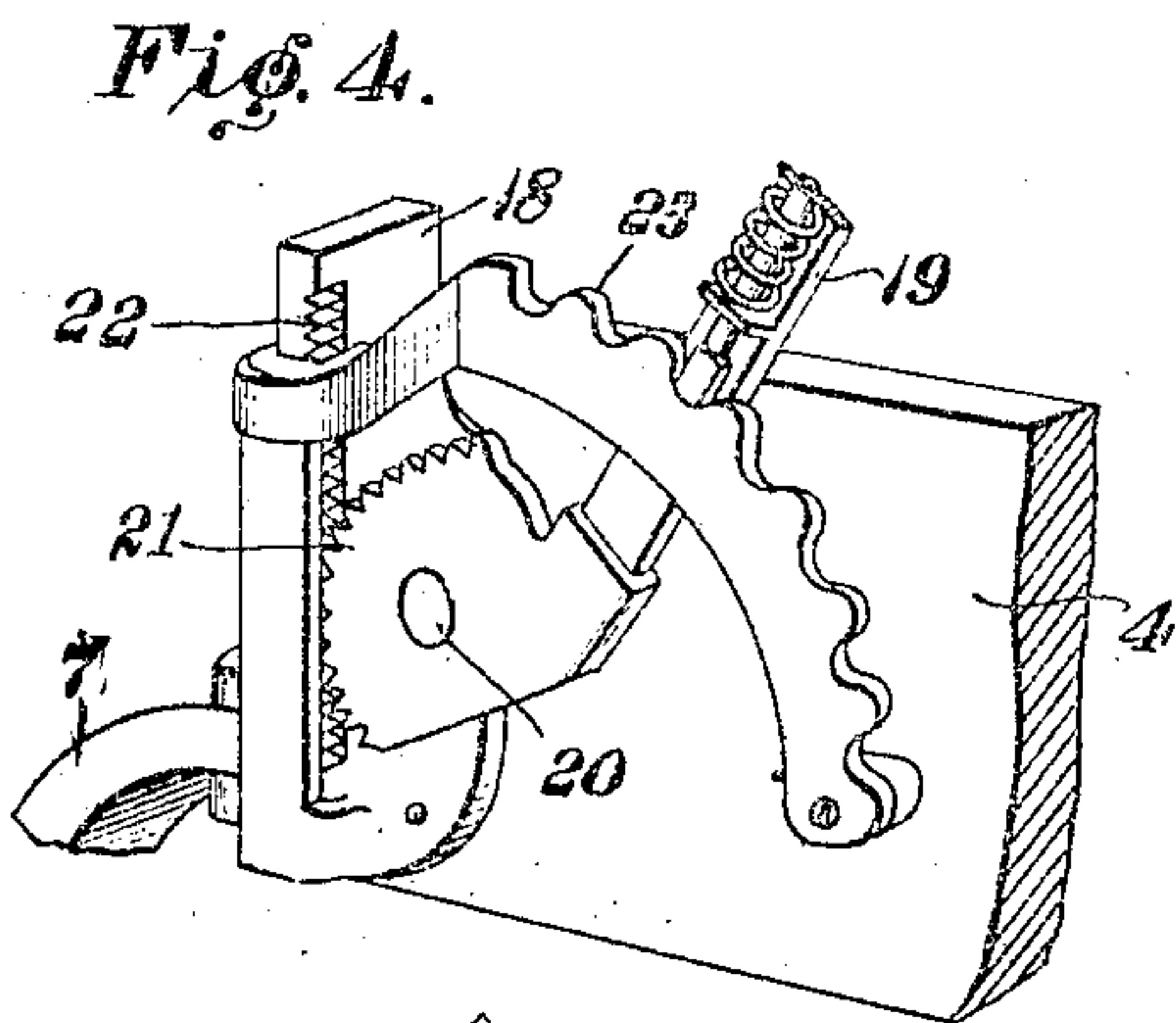
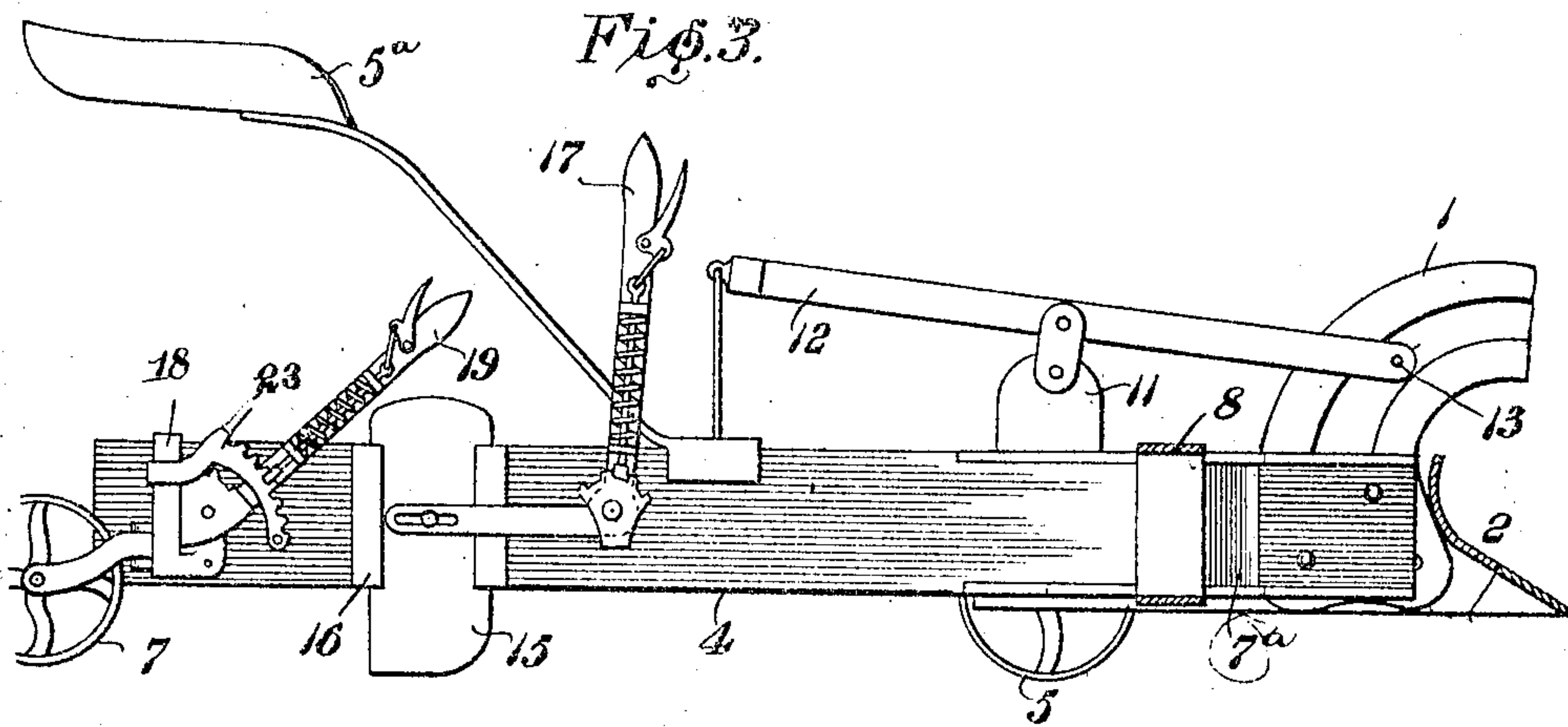
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# UNITED STATES PATENT OFFICE.

WILLIAM A. CAMPBELL, OF MARCELINE, MISSOURI.

## PLOW AND SCRAPER.

No. 912,808.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed June 11, 1908. Serial No. 437,895.

*To all whom it may concern:*

Be it known that I, WILLIAM A. CAMPBELL, citizen of the United States, residing at Marceline, in the county of Linn and State of Missouri, have invented certain new and useful Improvements in Plows and Scrapers, of which the following is a specification.

The present invention provides a novel machine particularly adapted for road-work, either in opening new roads or for leveling and repairing existing roads, the machine embodying a plow and a drag, both of which are independently adjustable according to the particular work in hand, and the drag having independent lateral movement either to distribute the earth to fill up low places or to cut off projections and to throw the surplus earth outward.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a machine embodying the invention. Fig. 2 is a top plan view. Fig. 3 is a longitudinal section, the front portion of the plow beam being broken away, said view representing the parts as seen looking towards the beam. Fig. 4 is a detail perspective view of the rear end of the beam showing the mountings and cooperating parts of the caster wheel fitted thereto. Fig. 5 is a perspective view of the rear end of the drag bar, showing the mountings and cooperating parts of the caster wheel applied thereto. Fig. 6 is a detail perspective view of the front portions of the beam and drag bar, showing their connections.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The machine embodies a beam 1, a plow 2, a drag 3 and a beam 4. A seat 5<sup>a</sup> has its standard connected to the beam 4. A series of three wheels 5, 6 and 7 support the machine and control the relative elevation of

the plow and drag to meet conditions of work. The beam 4 preferably consists of a wooden timber and is secured at its front end to a casting 7<sup>a</sup> which is recessed in a side to receive said beam, portions of the casting embracing upper and lower edges of the beam. A bracket 8 is secured to a side of the casting 7<sup>a</sup> near the front end of the beam 4 and its horizontal members or arms are pierced so as to receive a pin 9 upon which the drag 3 is mounted to swing horizontally. Guides 10 are arranged upon the outer side of the casting 7<sup>a</sup> and receive a plate 11 which is provided at its lower end with the front wheel 5, said plate being adjusted vertically by means of a lever 12 which is pivoted at 13 to the beam 1, a foot rest 14 having connection with the rear end of said lever to be depressed when it is required to elevate the plow 2. The foot rest 14 extends within convenient reach of the feet of the driver when mounted upon the seat 5<sup>a</sup>. To prevent side draft and insure movement of the machine in a direct line, a blade 15 is mounted in guides 16 secured to the inner side of the beam 4 near the rear end thereof. A lever 17 is provided to move the blade 15 vertically, and said lever is supplied with the usual latch bolt to cooperate with a notched segment to secure the blade 15 in the adjusted position.

The frame of the caster wheel 7 is pivoted to the lower end of a bar 18 mounted in suitable guides for vertical adjustment, said caster wheel being free to move about a vertical axis. A lever 19 pivoted at 20 is provided with a toothed segment 21 which is adapted to mesh with teeth 22 along an edge or portion of the bar 18. The lever 19 is supplied with the accustomed latch bolt which cooperates with a toothed segment 23 by means of which the bar 18 and the caster wheel 7 is secured in the adjusted position.

The drag 3 consists of a metal bar or plate which may be cast or otherwise constructed, and as stated is pivoted at its front ends to the front portion of the beam 4, so as to swing laterally at its rear end. A rib 24 is formed on the inner side of the drag and extends lengthwise thereof and is formed with a series of openings 25. A rod 26 secured at one end to the beam 4, has its opposite end of hook form and adapted to engage any one of a series of openings 25 so as to secure the drag in the required position. A blade 27 is bolted or otherwise secured to the lower edge



of the bar 3, and is of case hardened or tempered steel so as to resist wear.

The caster wheel 6 is mounted in a frame 28 which is pivoted to a vertically adjustable plate 29 so as to swing laterally. The plate 29 is mounted in guides 30 and 31 provided upon the inner side of the drag near its rear end. One of the guides, 31, is provided with a vertical series of teeth 32 which coöperate with a toothed segment 33 of a lever 34 mounted upon an arm 35 projected from the plate 29. Operation of the lever 34 causes the plate 29 to move vertically and thereby raise or lower the rear end of the drag. The lever 34 is provided with a latch bolt which coöperates with the toothed segment 36 forming a part of the guide 31 so as to secure the plate 29 and caster wheel 6 in the desired position.

From the foregoing it will be understood that the plow 2 may be instantly raised or lowered and is controlled in its movement by the weight of the driver through the instrumentality of the foot rest 14 and lever 12. Side draft is prevented by the blade 15 which may be projected to a greater or less extent below the beam 4 according to the nature of the road or surface upon which the machine may be operated. The lateral inclination of the drag may be regulated and fixed by means of the rod 26 and the openings 25 formed in the web 24. The rear end of the drag may be adjusted by moving the plate 29 up or down, as will be readily apparent.

Having thus described the invention, what is claimed as new is:

1. In combination, a plow beam provided with a plow point, a second beam extended rearwardly from the plow beam, a drag hav-

ing pivotal connection at its front end with the front portion of said second beam and laterally adjustable at its rear end, means for connecting the drag to said second beam and fixing its position, a wheel arranged near the front end of said second beam, caster wheels at the rear ends of said second beam and drag, and means for vertically adjusting the several wheels and securing the same in the located position.

2. In combination, a plow beam provided with a plow point, a second beam extended rearward from the plow beam, a laterally adjustable drag having pivotal connection at its front end with the said second beam, vertically adjustable wheels near the front and rear ends of said second beam and drag, a blade mounted upon said second beam, and means for adjusting said blade vertically and securing the same in the located position.

3. In combination, a plow beam provided with a plow point, a second beam having rigid connection with the plow beam and extended rearward therefrom, a drag having pivotal connection at its front end with said second beam and having a longitudinal rib upon its inner side formed with a series of openings, a rod adjustably connecting the drag with said second beam, a vertically adjustable wheel near the front end of said second beam, and vertically adjustable caster wheels at the rear ends of the drag and said second beam.

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

WILLIAM A. CAMPBELL. [L. S.]

Witnesses:

R. M. WRENN,  
R. H. KENT.