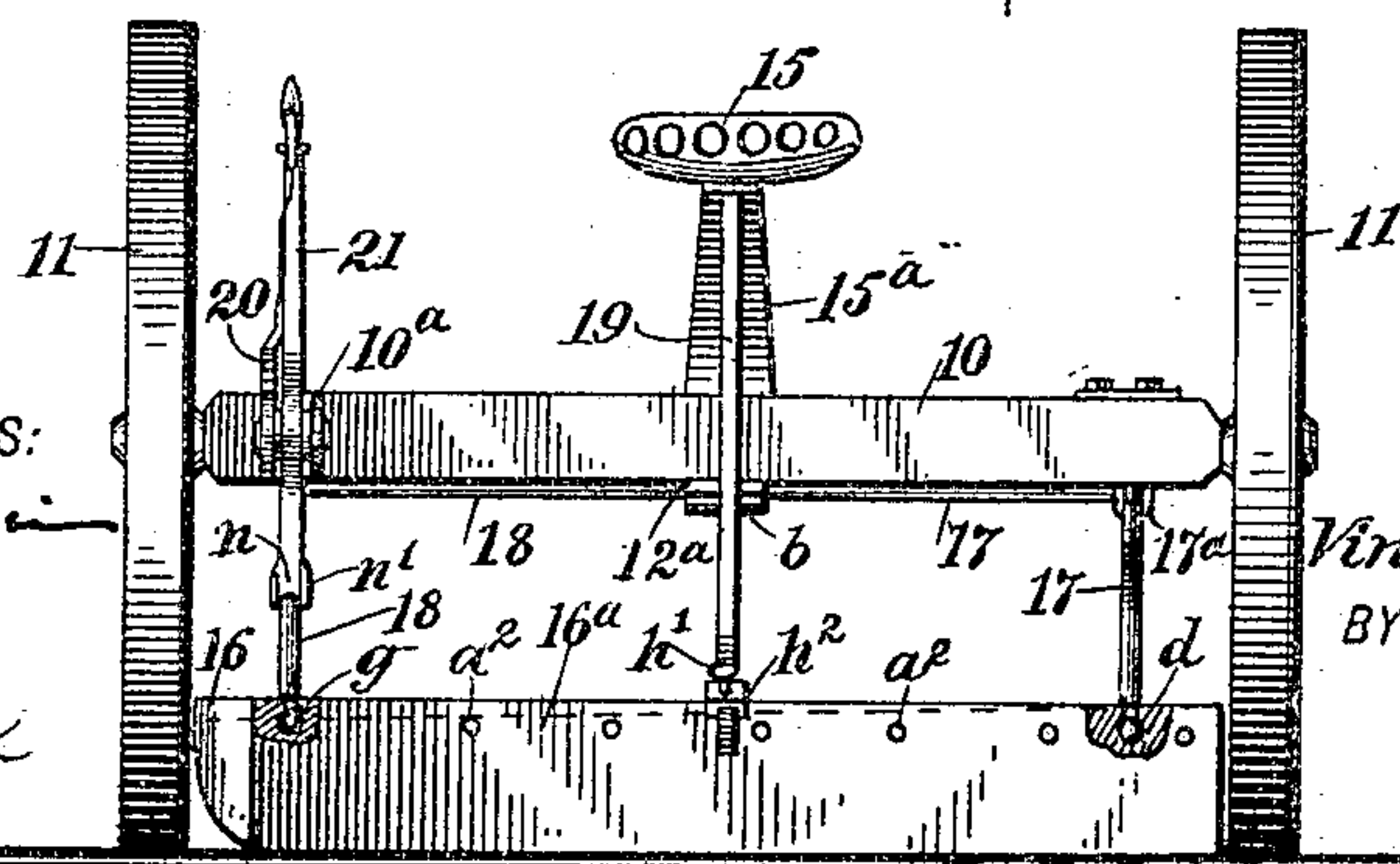
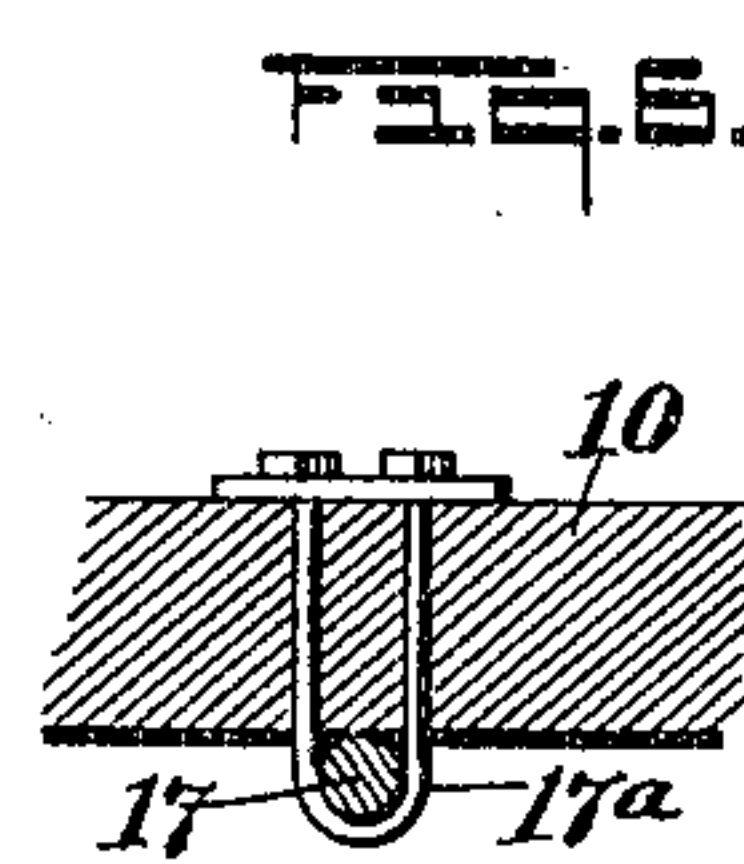
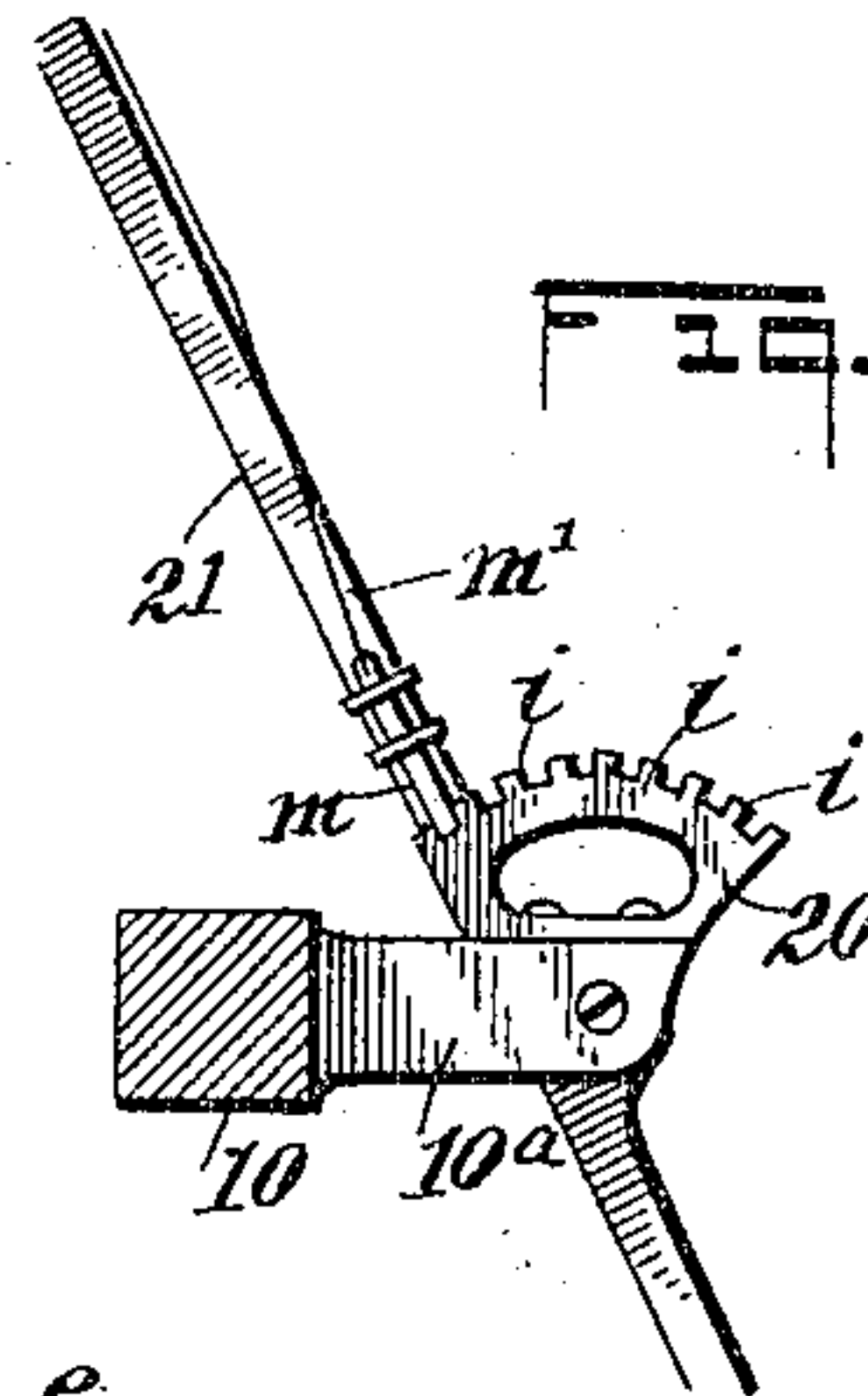
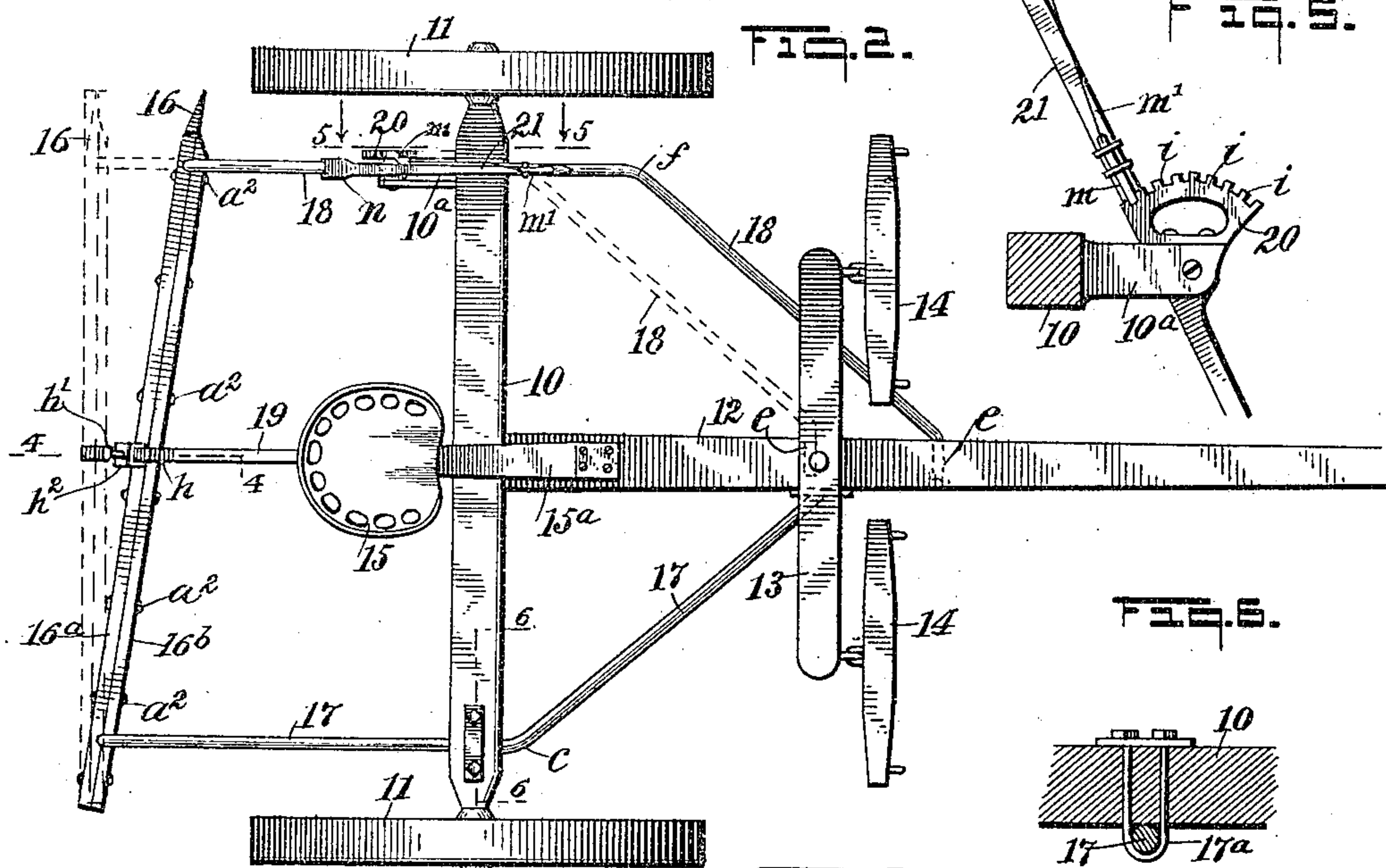
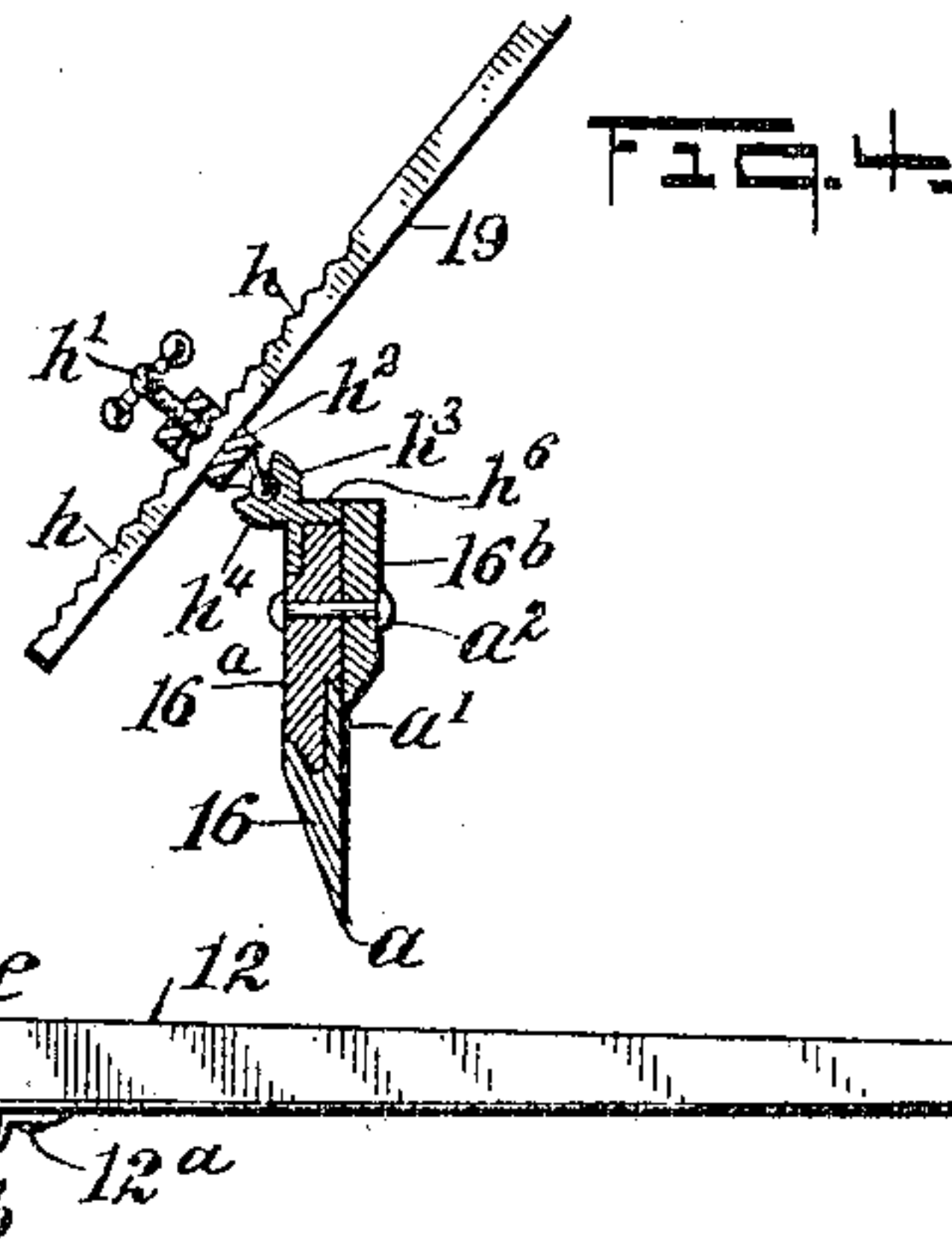
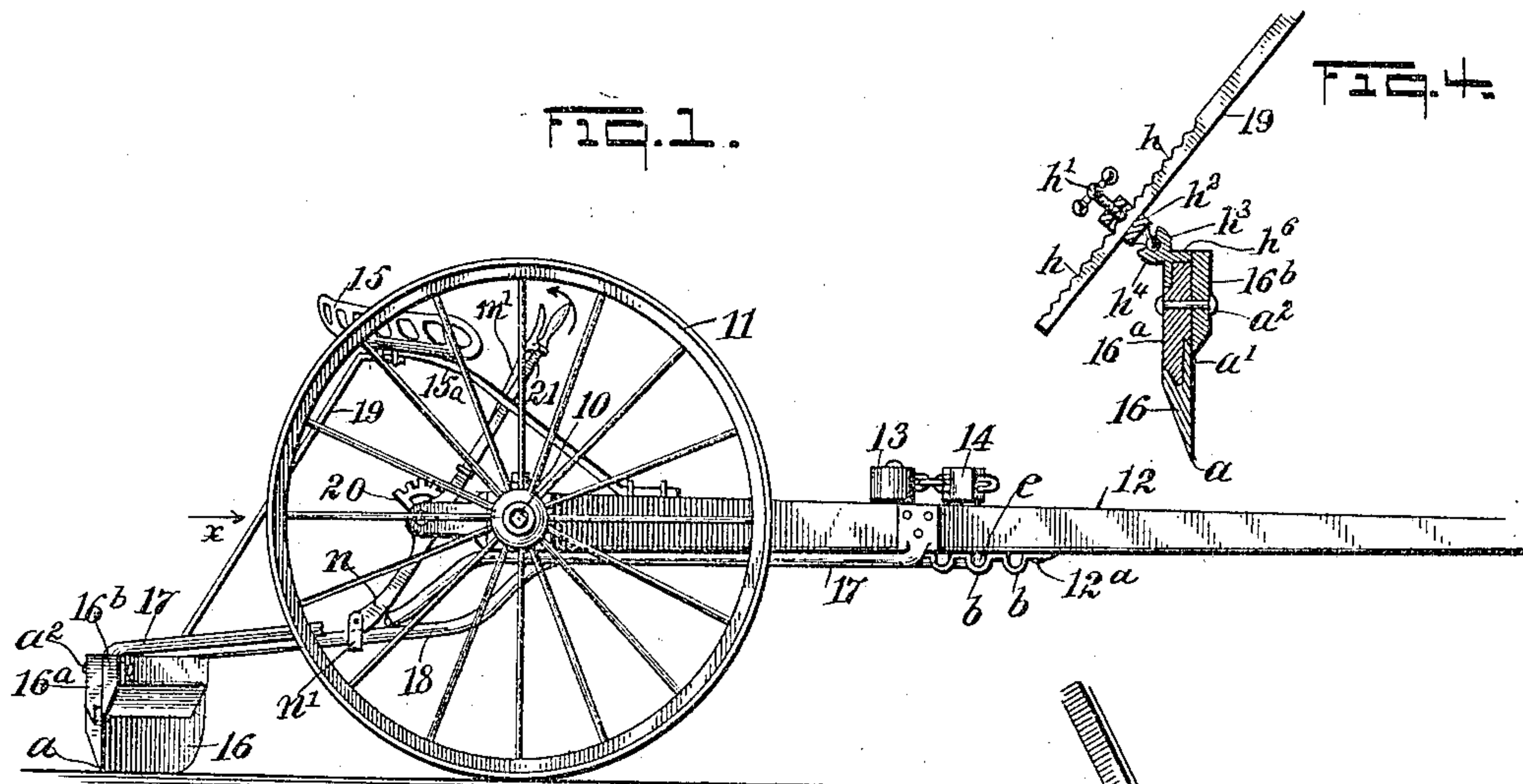


No. 807,936.

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ROAD SCRAPER.

PATENTED DEC. 19, 1905.

APPLICATION FILED SEPT. 18, 1905.



WITNESSES:
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VINCENT MICAHAH JACKSON, OF LAUREL HILL, LOUISIANA.

ROAD-SCRAPER.

No. 807,936.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed September 18, 1905. Serial No. 278,936.

To all whom it may concern:

Be it known that I, VINCENT MICAHAH JACKSON, a citizen of the United States, and a resident of Laurel Hill, in the parish of West Feliciana and State of Louisiana, have invented a new and Improved Road-Scraper, of which the following is a full, clear, and exact description.

This invention relates to power-drawn scrapers employed for the leveling of material in the formation of a new road-bed or the repair of a road, as occasion may require, and has for its object to provide novel details of construction for a road-scraper which are simple and afford an implement that is strong, durable, and very convenient to adjust for efficient service.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of the improved road-scraper adjusted for service. Fig. 2 is a plan view of the same. Fig. 3 is a partly-sectional rear end view seen in direction of arrow *a* in Fig. 1. Fig. 4 is a transverse sectional view showing the connection of the scraper with an adjustable support therefor, the section being substantially on the line 4-4 in Fig. 2. Fig. 5 is an enlarged partly-sectional side view on the line 5-5 in Fig. 2, showing a pressure-arm in part and means for holding said arm adjusted to produce pressure on a rock-arm that controls the free end of the scraper-blade for the machine; and Fig. 6 is a transverse sectional view of details substantially on the line 6-6 in Fig. 2, showing a clamping connection between the axle of the machine and a carrier-bar that supports the other end of the scraper-blade.

The scraper implement is preferably provided with means for its progressive movement by draft-animals, and to this end embodies an axle 10, supported by a pair of traction-wheels 11, rotatably engaged with spindles on ends of the axle, and from the center of the axle a draft-pole 12 is extended forwardly, whereon the doubletree 13, carrying the swingletrees 14, is pivotally mounted for the connection of a team of draft-animals with the latter in the usual manner. A seat 15 is mounted on the pole 12 by means of the usual spring-bar 15^a, thus accommodating the

driver of the team, who is to ride upon the wheeled scraper implement.

The scraper employed and which is to be moved by the running-gears hereinbefore described is preferably constructed as shown in Figs. 1, 2, and 4, comprising the following details: 16 indicates the scraper-blade, that is beveled toward its normally lower edge *a*, as shown in Fig. 4, the upper edge having a preferably V-shaped groove therein, which receives the lower edge of a head-block 16^a, that fits into the groove and is adapted to bear against a vertical flange *a'*, that is formed on the scraper-blade by the groove therein. Upon the forward side of the head-block 16^a a clamping-plate 16^b is secured by bolts or rivets *a*² and has contact with the flange *a'* on its forward side, the rivets *a*² serving to bind the head-block and clamping-plate upon the flange *a'*, as is indicated in Fig. 4.

The scraper-blade and its adjuncts that have been described are together held adjustably in position for service at a suitable distance rearward of the axle 10 by means of a carrier-bar 17 and rock-arm 18, which receive support from the pole 12, as follows: Upon the lower side of the draft-pole 12, at a suitable point forward of the axle 10, a bracket-plate 12^a is secured, which is formed with a plurality of half-circular boxes *b*, that are spaced apart and are closed on their open upper sides by their contact with the draft-pole, as appears in Fig. 1. At the right side of the running-gears, viewed from the rear, one end of the carrier-bar 17 is secured upon the draft-pole near the bracket-plate 12^a and thence extends rearward and outward, having a bend at *c* that disposes the portion of the carrier-bar beneath the axle and in contact therewith near one of the traction-wheels 11. The rear end of the carrier-bar 17 is extended a suitable distance from the axle 10 and near its extremity is bent downward, there being preferably a ball *d* formed thereon which has a loose engagement within a socket formed in the head-block 16^a and clamping-plate 16^b near their right-hand ends, as appears in Fig. 3, this connection permitting a limited rocking movement of the scraper-block and its clamping-supports in direction of its length only. The carrier-bar 17 is connected with the axle 10 by a U-shaped clamp 17^a, that holds the bar secured against the lower side of the axle, as shown in Fig. 6.

The rock-arm 18 is formed substantially similar to the carrier-bar 17, with the excep-

tion that there is a laterally-bent journal *e* formed on the forward end of the arm, which may be introduced into either of the boxes *b* and be held to rock therein. The bend *f* on the rock-arm is forward of the axle 10, and from said bend the arm extends straight below the latter of a length that adapts its rear end to have engagement with the scraper-blade or with its clamping-supports near the opposite end thereof.

Preferably there is a short member *g* bent down from the rear end portion of the rock-arm 18, which may be furnished with a ball thereon, said ball loosely occupying a corresponding socket that is produced between the head-block 16^a and clamping-plate 16^b, that by their clamped engagement prevent improper looseness. It will be seen that the rock-arm 18 holds the scraper-blade 16 at any point of necessary rocking adjustment forward or rearward, having the ball *d* for a pivot, one means for controlling this rocking movement consisting in the removal of the journal *e* from one box *b* to another one. A further means for control of the scraper 16 consists of a hanger-bar 19, which is secured by one end upon the seat-support 15^a and thence extends rearward and downward over the head-block 16^a and clamping-plate 16^b. In the upper side of the lower portion of the hanger-bar 19 a series of serrations *h* is formed that may be separately engaged by a set-screw *h'*, screwing into a clip-band *h*², slidably mounted on the hanger-bar, said clip-band having a ball formation *h*³ on its lower side that seats in a socket *h*⁴, formed on an angular bracket-foot *h*⁶, which is secured upon the upper edge of the head-block 16^a near its longitudinal center.

It will be noted that the hanger-bar 19 affords support to the scraper-blade along with the carrier-bar 17 and rock-arm 18 and enables the elevation of the end of the scraper-blade nearest to the rock-arm, as the set-screw *h'*, if removed from engaging the serrated surface of the hanger-bar, will permit a sliding adjustment of the clip-band for elevation or depression of said end of the scraper-blade, as may be desired, and it will be obvious that the ball-and-socket connection *h*³ *h*⁴ will facilitate the rocking movement of the scraper-blade laterally as well as vertically. The provision of the hanger-bar 19 is very essential for the elevation of the scraper when the machine is to be moved without scraping the ground, as is necessary in moving it over graded portions of a road and transportation of the machine over a finished road.

Upon a projection 10^a on the rear side of the axle 10 a sector 20, having peripheral teeth *i*, is mounted and secured, and upon the same support concentric with the teeth *i* a pressure-lever 21 is pivoted near its center of length. The pressure-lever 21 is provided with a slide-bolt *m*, controlled by a rod *m'*, that extends to the handle on the upper end of

said lever, the bolt being adapted for manipulation as usual in reversing rigging, so as to slide it between adjacent teeth *i* or retract it therefrom, whereby to hold the lever at any point of rocked adjustment or release it therefrom. Upon the lower end of the lever 21 a suitable foot *n* is formed, which seats upon the rock-arm 18 rearward of the axle 10, and said foot may have a looped band *n'* loosely secured thereon, which engages the lower side of the rock-arm.

It will be seen that if the upper end of the pressure-lever 21 is rocked in direction of the curved arrow in Fig. 1 the foot *n* will be forcibly pressed upon the rock-arm 18, which will correspondingly depress the free adjacent end of the scraper-blade, and obviously the engagement of the slide-bolt *m* between appropriate teeth *i* will hold the scraper-blade in such condition until the lever is reversed and the rock-arm raised by means of the looped band *n'*.

It will be apparent from the foregoing description that the operation of scraping with the improved machine is under control of the driver seated thereon and, furthermore, that the blade 16 may be adjusted to incline forwardly at its free end or be set parallel with the axle, as may be desired, these adjustments being effected by means of the changeable engagement of the forward end of the rock-arm with the bracket-plate 12^a and the cooperation of the hanger-arm 19 therewith, as hereinbefore fully described.

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

1. The combination with an axle, two wheels thereon, and a draft-pole, of a scraper, a carrier-bar extended rearward from the axle and supporting one end of the scraper, a rock-arm pivoted by one end on the draft-pole, and upon the scraper at the other end thereof, and means for controlling the rocking movement of said rock-arm.

2. The combination with an axle, two wheels thereon, and a draft-pole, of an elongated scraper, a carrier-bar secured upon the draft-pole and axle, and at its rear end journaled on the scraper near one end so as to permit said scraper to rock toward and from the axle at its opposite end, a rock-arm having a lateral journal on one end adapted for changeable engagement with either one of a series of boxes on the draft-pole, and thence extended below the axle rearwardly, having its rear end pivoted on the scraper so as to permit the lateral and vertical adjustment of the scraper, and means for controlling said adjustments for the scraper.

3. The combination with an axle, two wheels rotatable on ends of the axle and a draft-pole extended forwardly from the axle, of an elongated scraper, a carrier-bar secured by one end on the draft-pole, and thence extended outward and rearward, passing below the axle and se-

cured thereto, the rear end of said carrier-bar, having pivoted engagement with one end of said scraper, permitting it to rock toward and from the axle, a rock-arm having a lateral journal on its forward end, a bracket-plate having a series of spaced boxes thereon and secured on the draft-pole, for engagement of the lateral journal in either box, said rock-arm extending laterally and rearwardly from the draft-pole passing below the axle, a ball-and-socket connection between the rear end of the rock-arm and the remaining end portion of the scraper, and a pivoted pressure-lever engaging one end with the rock-arm, and adapted by rocked adjustment for controlling the vertical adjustment of the end of the scraper that the rock-arm engages.

4. The combination with an axle, two wheels rotatable on ends of the axle, a draft-pole extended forwardly therefrom, and a seat on the pole, of a scraper-blade held clamped between a head-block and a clamping-plate, a carrier-bar extended rearward from the axle near one wheel, and having a depending pivot at its rear end which engages one end portion of the scraper between its head-block and clamping-plate, permitting the scraper to rock toward and from the axle, a rock-arm longitudinally adjustable by journaled engagement of its forward end with one of a series of boxes on the draft-pole and pivoted at its rear end on the scraper near its remaining end, a pressure-lever pivoted to rock on the axle, and having a loose engagement with the rock-arm, and means for holding the lever rocked for pressure on or elevation of the rock-arm and engaged end of the scraper-blade.

5. The combination with an axle, wheels thereon, and a draft-pole, of a scraper, a carrier-bar extended from the axle and loosely connected at its rear end with one end portion of the scraper, a rock-arm pivoted by one end on the draft-pole and at its other end on the remaining end of the scraper, a hanger-bar inclined rearward and downward from a seat on the draft-pole, and means for loosely coupling the scraper upon the hanger-bar between the ends of said scraper.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VINCENT MICAHAH JACKSON.

Witnesses:

F. F. CONVERSE,
J. H. CLACK.