

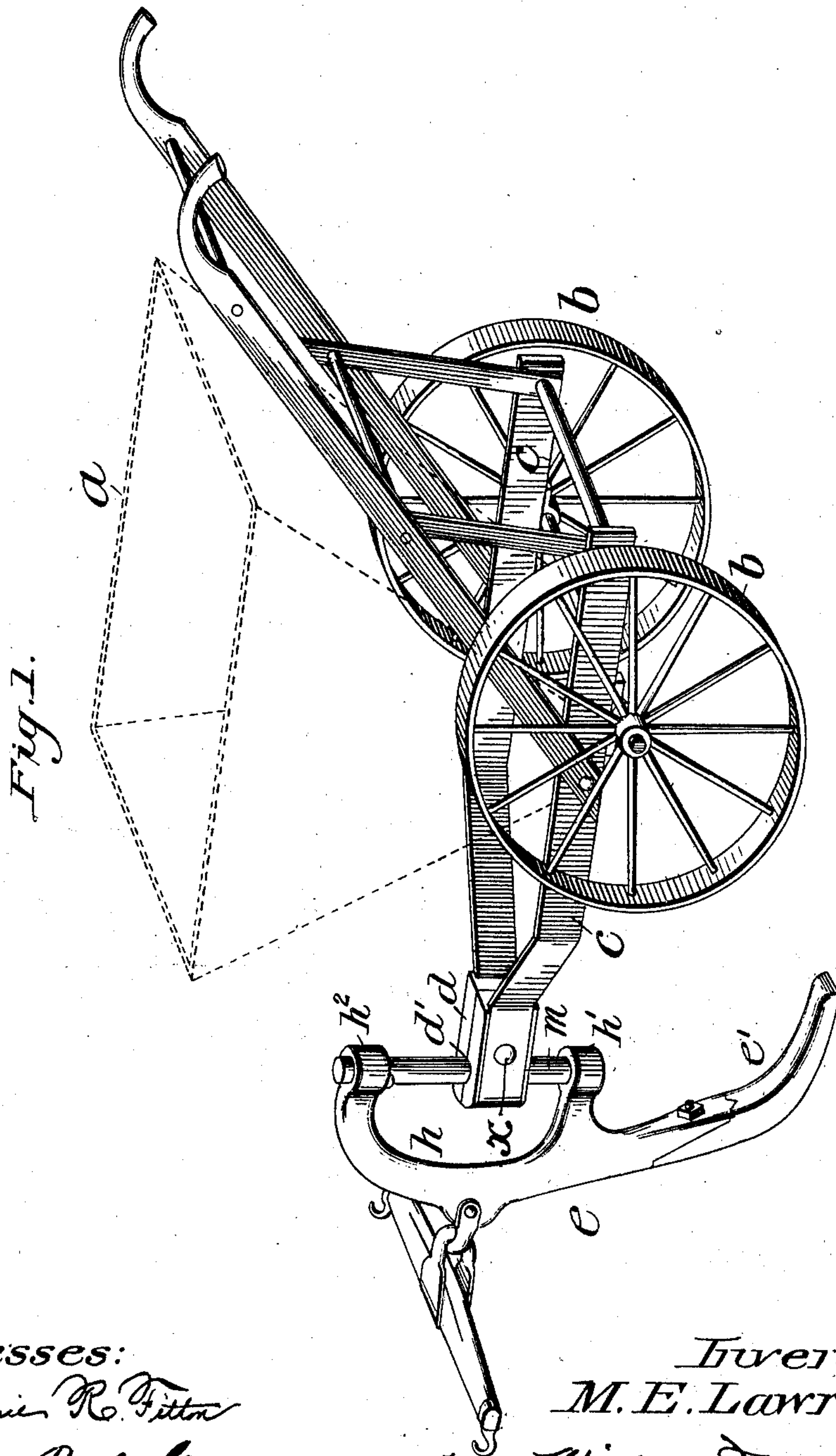
No. 737,637.

PATENTED SEPT. 1, 1903.

M. E. LAWRENCE.
FERTILIZER DISTRIBUTER.
APPLICATION FILED JULY 23, 1903

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

Fannie R. Fitton
Eugene Paul Borges

Inventor:
M. E. Lawrence.

by *William F. Hall*

his Atty.

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NO MODEL.

2 SHEETS—SHEET 2.

Fig. 2.

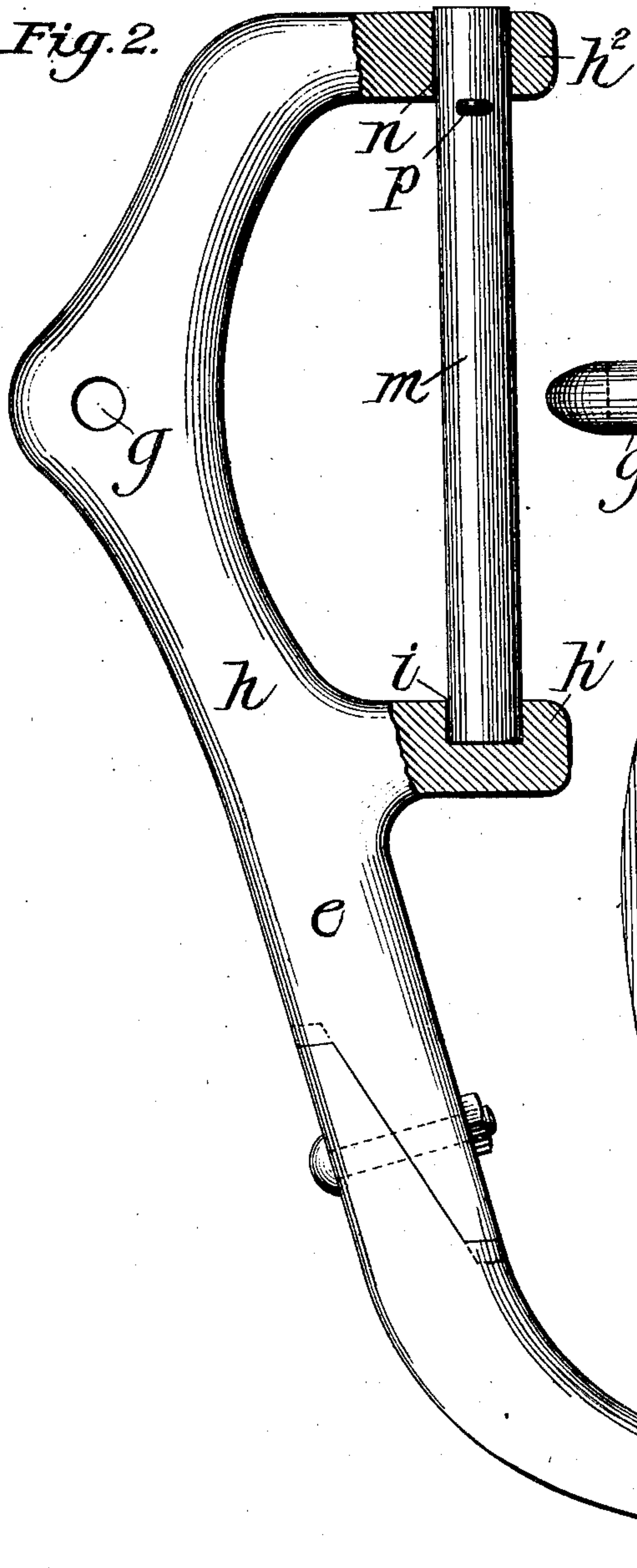


Fig. 3.

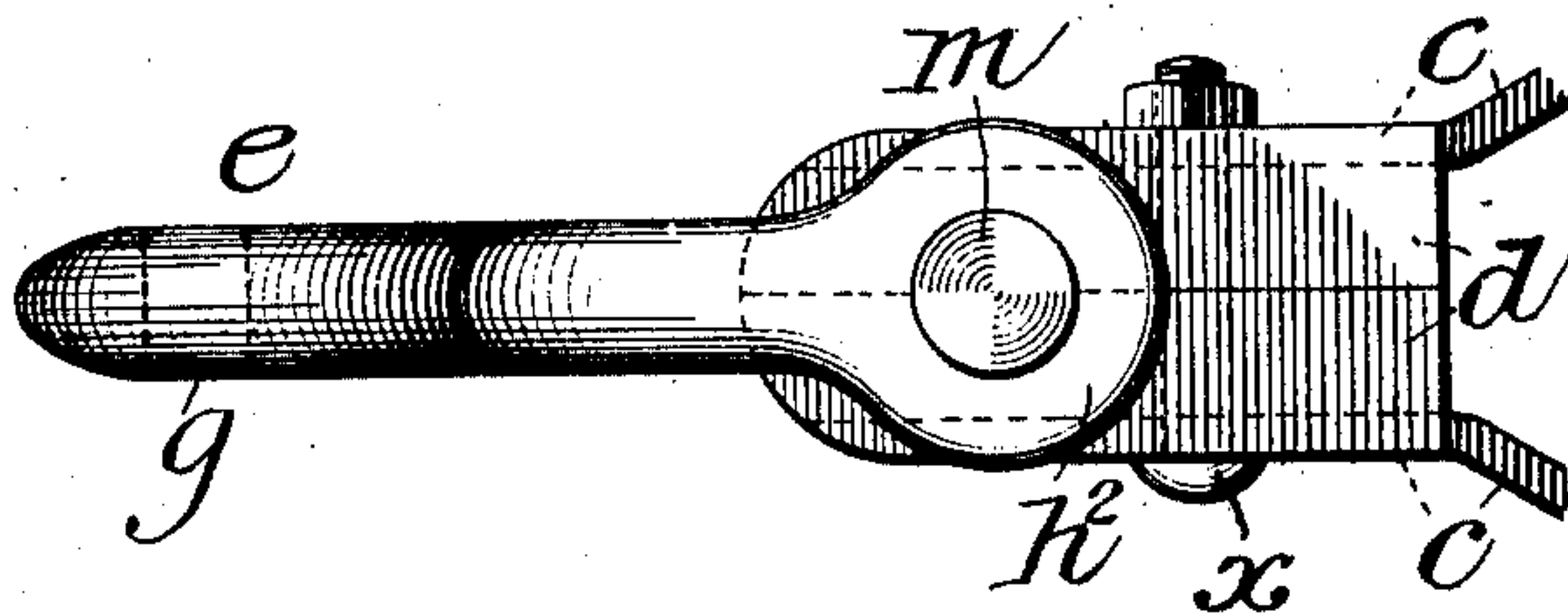
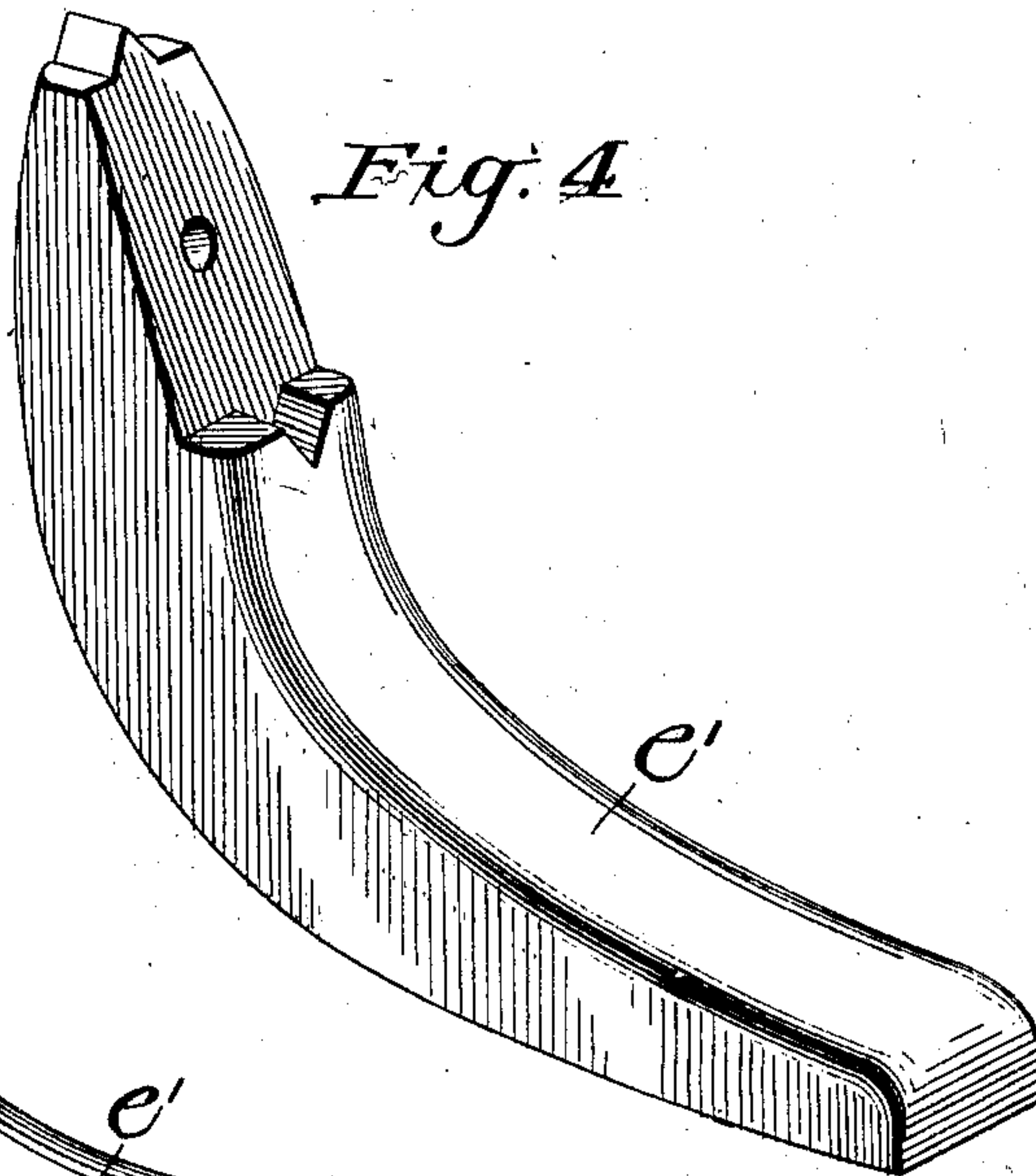


Fig. 4.



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UNITED STATES PATENT OFFICE.

MILLS EDWARDS LAWRENCE, OF FRANKLIN, VIRGINIA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 737,637, dated September 1, 1903.

Application filed July 23, 1903. Serial No. 166,721. (No model.)

To all whom it may concern:

Be it known that I, MILLS EDWARDS LAWRENCE, a citizen of the United States, and a resident of Franklin, in the county of Southampton and State of Virginia, have invented certain new and useful Improvements in Fertilizer-Distributers, of which the following is a specification.

My invention relates to fertilizer-distributers of that type in which a frame or body is employed, supported upon a pair of wheels which carry the main weight of the load, and which is equipped at its front end with a supplemental support and guide, and the invention relates more particularly to the construction and arrangement of the latter device.

In the construction of machines to which my invention has reference the load is balanced upon the main supporting-wheels, with a slight preponderance of weight toward the front of the frame or body, and to support the latter a caster-wheel is commonly employed. It has been found in actual practice, however, that such a construction presents many disadvantages, especially when the machine is used upon soil of a sandy nature, chief among which has been the rapid wear of the wheel incident to the dirt working between the bearing parts thereof, and thus the wheel soon begins to wobble and seriously affects the perfect operation of the machine.

It is the primary object of my invention to provide a front support which will form a strong and steady support at all times, will be simple and inexpensive in construction, and generally efficient in operation.

To this end the invention includes the combination and arrangement of component parts of my device and the details of construction to be hereinafter described, and particularly pointed out in the claims.

While the invention is susceptible of some modification, I have shown in the accompanying drawings and shall hereinafter describe in connection therewith what is now conceived to be the preferred embodiment thereof.

In the drawings, Figure 1 illustrates a conventional form of fertilizer-distributer equipped with my improved support, which latter is shown in perspective. Fig. 2 is a side elevation of the support, parts being shown in section. Fig. 3 is a plan view of

the support and the gripping-block therefor associated with the fertilizer-frame, and Fig. 4 is a perspective view of the heel of the support.

As premised, a fertilizer-machine of conventional construction is illustrated in the accompanying drawings, the same including a carrying-hopper *a*, supporting-wheels *b*, and a body-frame *c*, which latter comprises a pair of side-bars deflected at their front portions, so that the ends or extremities thereof will lie in close juxtaposition to each other and be substantially parallel. Interposed between said ends is a sectional clamping-block *d*, having a vertically-disposed socket or opening *d'* extending through the same to receive a swivel-bolt, which is mounted in the support proper or shoe, to be hereinafter described, and a transversely-extending bolt opening in rear of said socket to receive a clamping-bolt, which latter serves to clamp the ends of the frame *c* to the block *d* and the sections of the latter together to grip the swivel-bolt referred to.

The support or shoe proper for the front of the machine is designated in the accompanying drawings by the letter *e* and includes a body portion having a rearwardly-extending curved bearing part or heel *e'* at its lower end and a yoke *a* at its upper end, which includes upper and lower rearwardly-projecting arms. Arranged centrally of the vertical portion of the yoke is a transverse opening *g* for the attachment of a clevis, swingletree, or other draft device to the support or shoe. The lower arm *h'* of the yoke is provided with a cup-shaped socket *i* in its upper portion to receive the lower end of the swivel-bolt *m* and support the same, while the upper arm *h''* is provided with an opening *n*, extending vertically through the same in alinement with said socket, which receives the upper end of said swivel-bolt. The latter is held in place, with its lower end seated in the socket *i*, by means of a pin *p*, extending transversely through the same, which finds a bearing against the under side of the arm *h''*. In assembling the parts the bolt *m* is passed down through the opening *n*, socket *d'* in the block *d*, and its lower end seated in the socket *i*. After the support has been adjusted vertically in relation to the frame to

support the front end of the latter at the desired elevation the clamping-bolt x is tightened up, which will, as hereinbefore described, force the sections of the block together, so that the same will firmly grip the bolt and at the same time tightly clamp the ends of the frame c to the sides of the block. The outer sides of the latter are preferably provided with channels to accommodate said ends. The ends of the bolt m work freely in the opening n and socket i , so that the support may freely swivel or turn upon the same. The vertical adjustment of the support provides for the same being shifted to compensate for any wear of the bearing portion or heel e' and also to accommodate varying conditions of soil. While this adjustment provides for the ordinary wear of the bearing portion of the support to permit said heel to be replaced when greatly worn without replacing the other parts of the support, the former is made separate from the main portion and detachably connected thereto—that is to say, the support is made in two sections, one of which constitutes the heel. In order to secure a firm rigid connection between the two sections, the meeting ends of the same are provided with abutting shoulders having transversely-extending interfitting tongues and grooves and obliquely-extending bearing-surfaces between said shoulders, and a bolt extends transversely through said meeting ends to clamp the parts together.

The construction and operation of my invention will be readily understood upon reference to the foregoing description and accompanying drawings, and it will be appreciated that the parts and combinations recited therein may be varied within a wide range without departing from the spirit and scope thereof.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a frame having separated ends and supporting-wheels upon which the frame balances, of a shoe for supporting the front of the frame, comprising a body portion having a rearwardly-extending heel at its lower end and a yoke at its upper end, a bolt swiveled in the arms of said yoke, a sectional block interposed between the ends of the frame having a socket to receive said bolt, and a second bolt for clamping the ends of the frame to the block, and the sections of the latter together to grip the first bolt, substantially as described.

2. The combination with a frame having separated ends and supporting-wheels for the latter upon which the same is balanced, of a shoe for supporting the front of the frame, comprising a body portion having a rearwardly-extending heel at its lower end and a yoke at its upper end, a bolt swiveled in the

arms of said yoke, and a clamping-block therefor held between the separated ends of said frame, substantially as described.

3. The combination with a frame having separated ends and supporting-wheels for the latter upon which the same is balanced, of a shoe for supporting the front of the frame, comprising a body portion having a rearwardly-extending heel at its lower end and a yoke at its upper end, including a lower rearwardly-extending arm having a socket therein, and an upper parallel arm having an opening extending vertically through the same in alinement with said socket, a bolt seated at its lower end in said socket and having its upper end held in said opening in the upper arm, and a clamping-block mounted upon said frame engaging said bolt intermediate of its ends, substantially as described.

4. The combination with a frame having separated ends and supporting-wheels for the latter upon which the same is balanced, of a shoe for supporting the front of the frame, comprising a body portion having a rearwardly-extending heel at its lower end and a yoke at its upper end, including a lower rearwardly-extending arm having a socket therein, and an upper parallel arm having an opening extending vertically through the same in alinement with said socket, a bolt seated at its lower end in said socket and having its upper end held in said opening in the upper arm, and a clamping-block carried by the frame adjustably engaging the intermediate part of the bolt, substantially as described.

5. A support, comprising a body portion having a yoke at its upper end and a detachable rearwardly-extending heel at its lower end, and a bolt swiveled in the arms of said yoke.

6. A support of the character described, comprising a body portion having a yoke at its upper end, the vertical portion of said yoke having an opening to receive a draft device, and a detachable rearwardly-extending heel at its lower end, the abutting ends of said heel and body portion of the support having shoulders provided with interfitting transversely-extending tongues and grooves and obliquely-extending bearing-surfaces between said shoulders, a bolt extending transversely through said meeting ends, and a bolt swiveled in the arms of said yoke, substantially as described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Franklin, in the county of Southampton and State of Virginia, this 15th day of July, 1903.

MILLS EDWARDS LAWRENCE.

Witnesses:

W. T. PACE,

E. R. DARDEN.