

(No Model.)

2 Sheets—Sheet 1.

F. H. BONI.
ROAD CART.

No. 405,074.

Patented June 11, 1889.

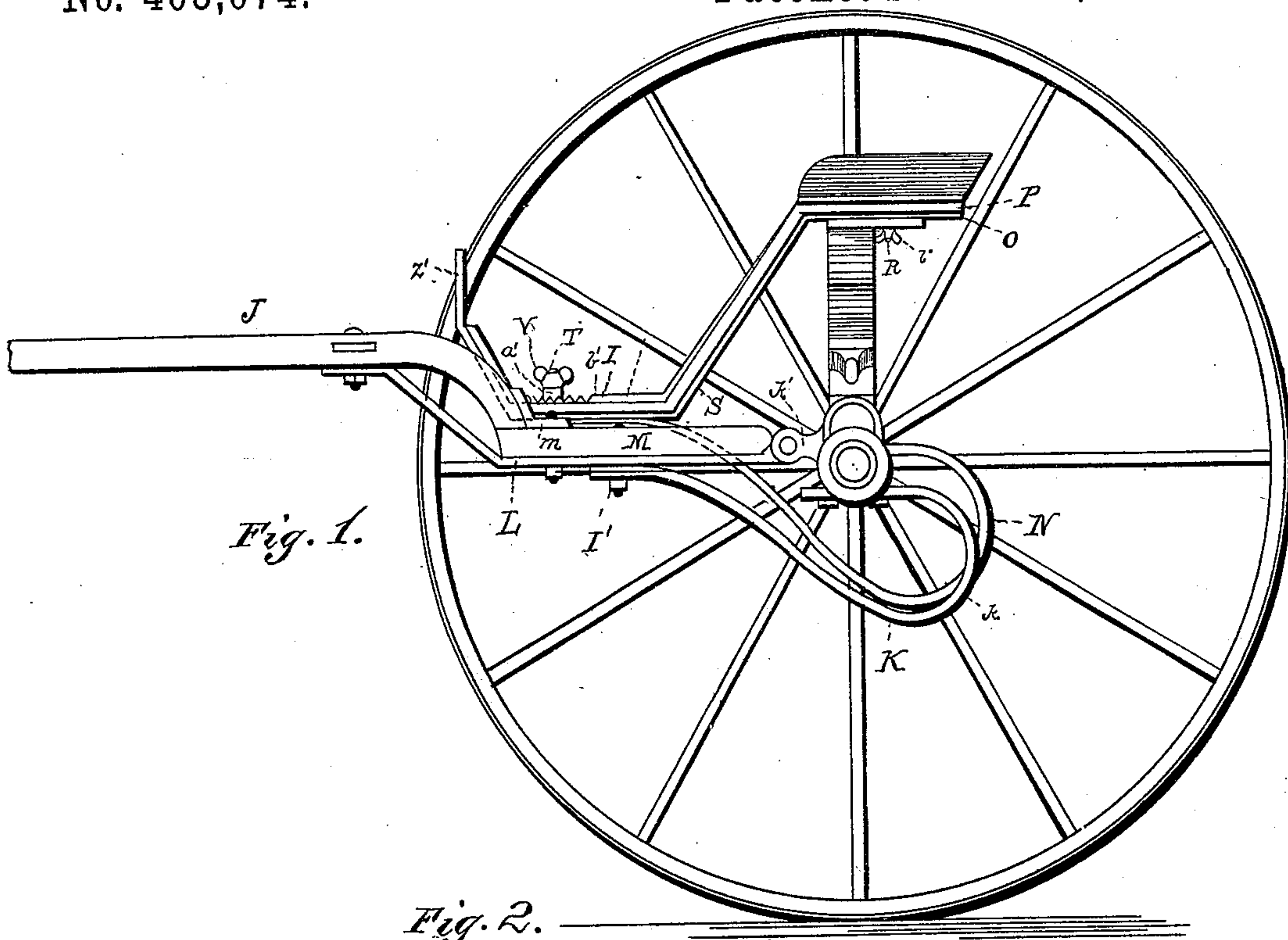
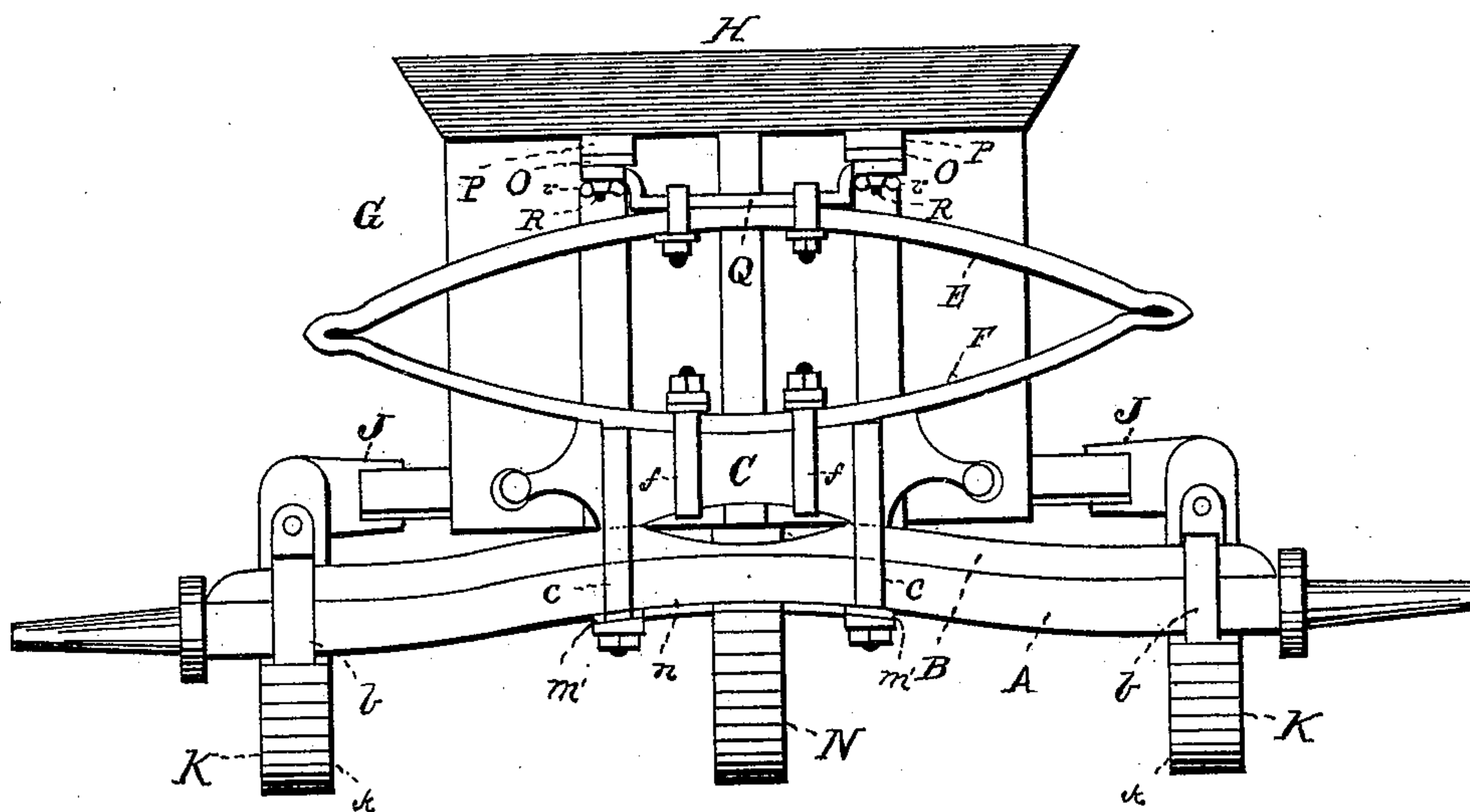
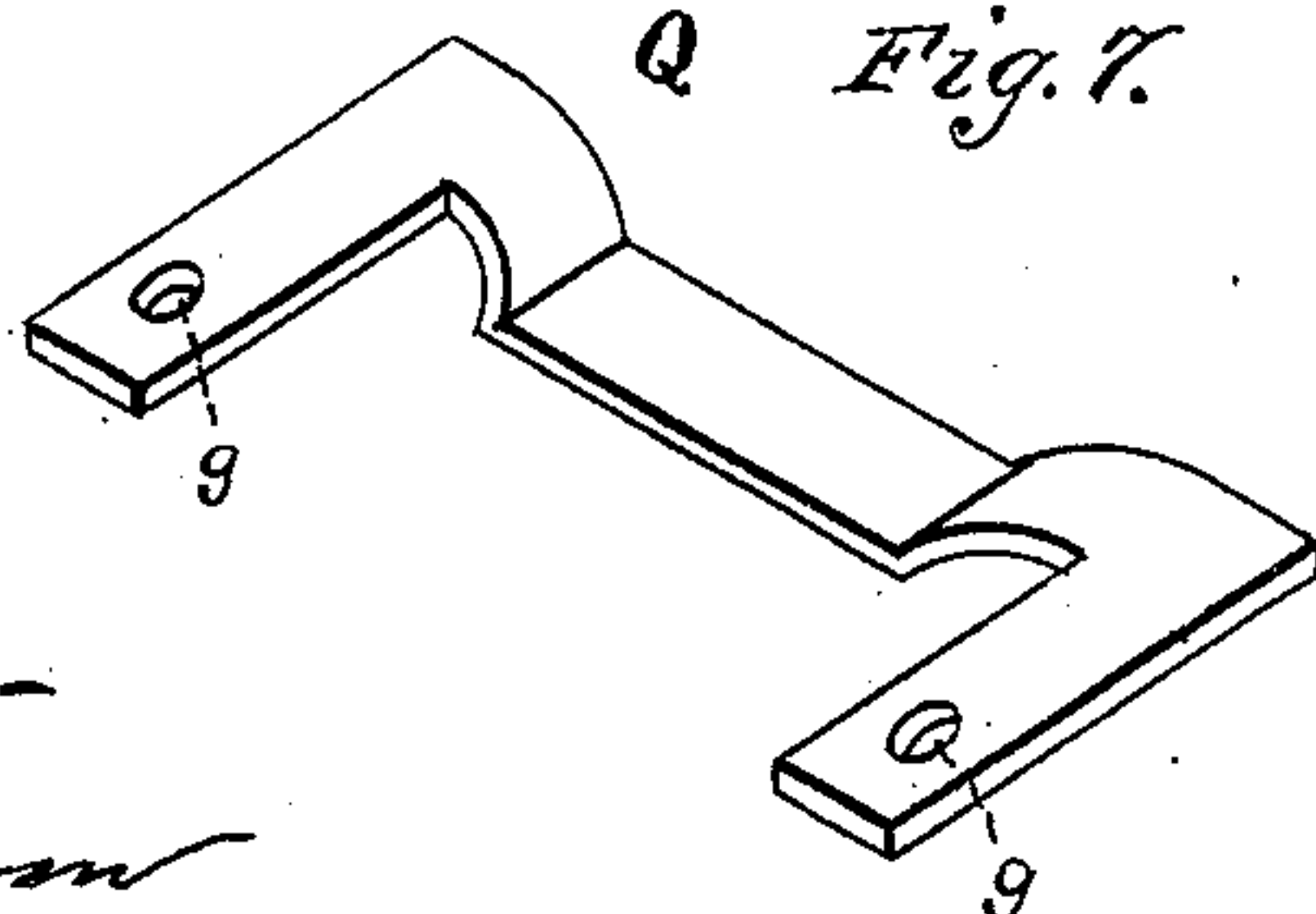


Fig. 2.



Q Fig. 7.



WITNESSES

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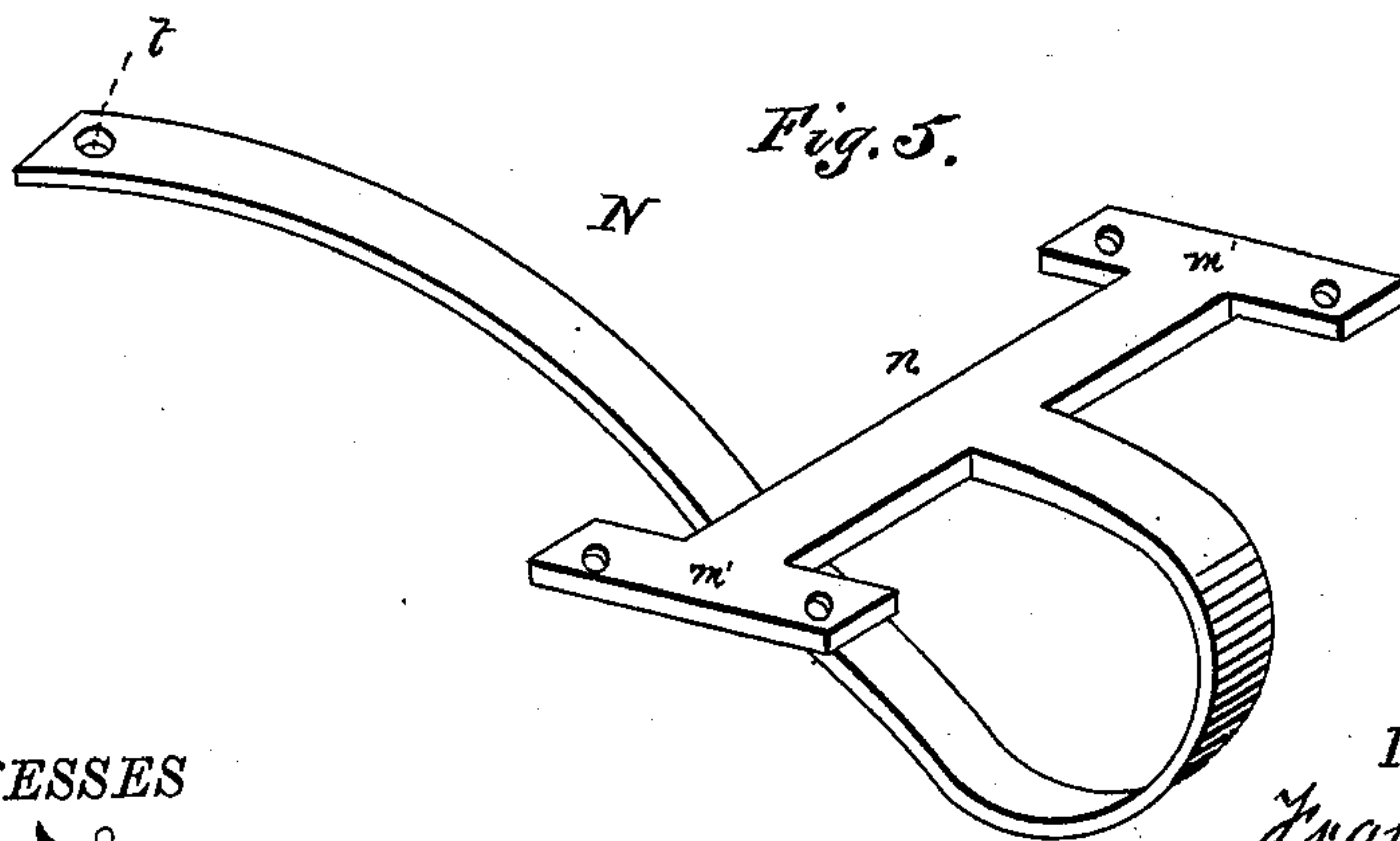
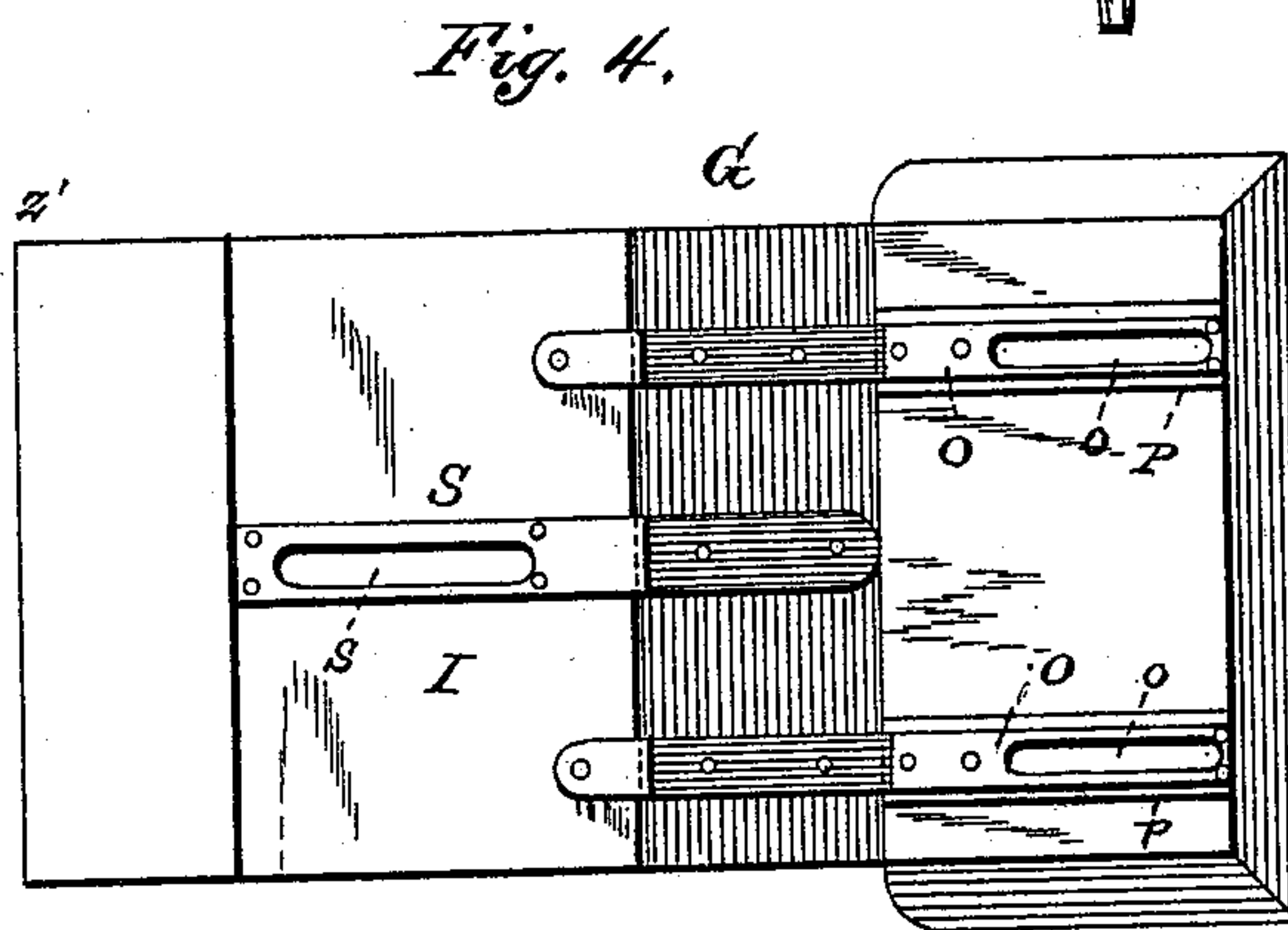
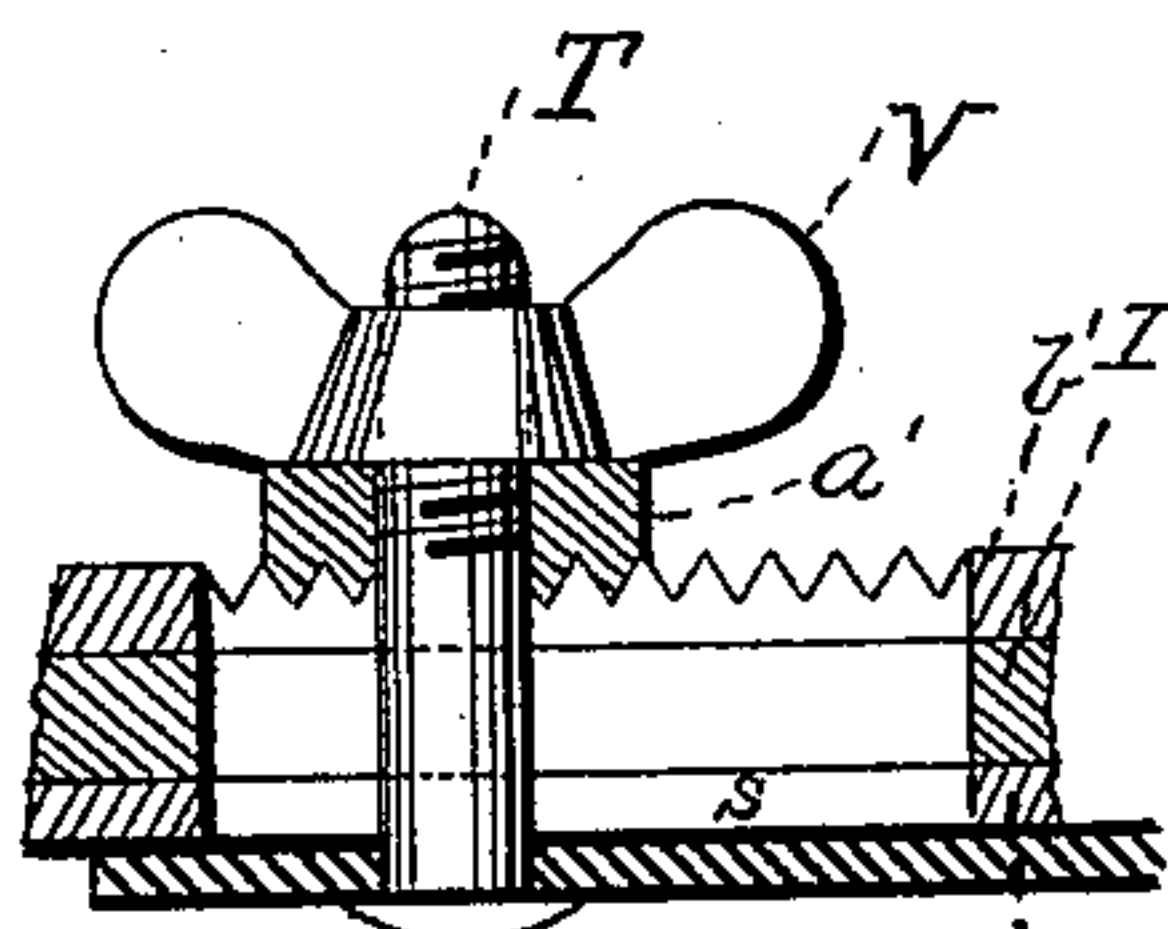
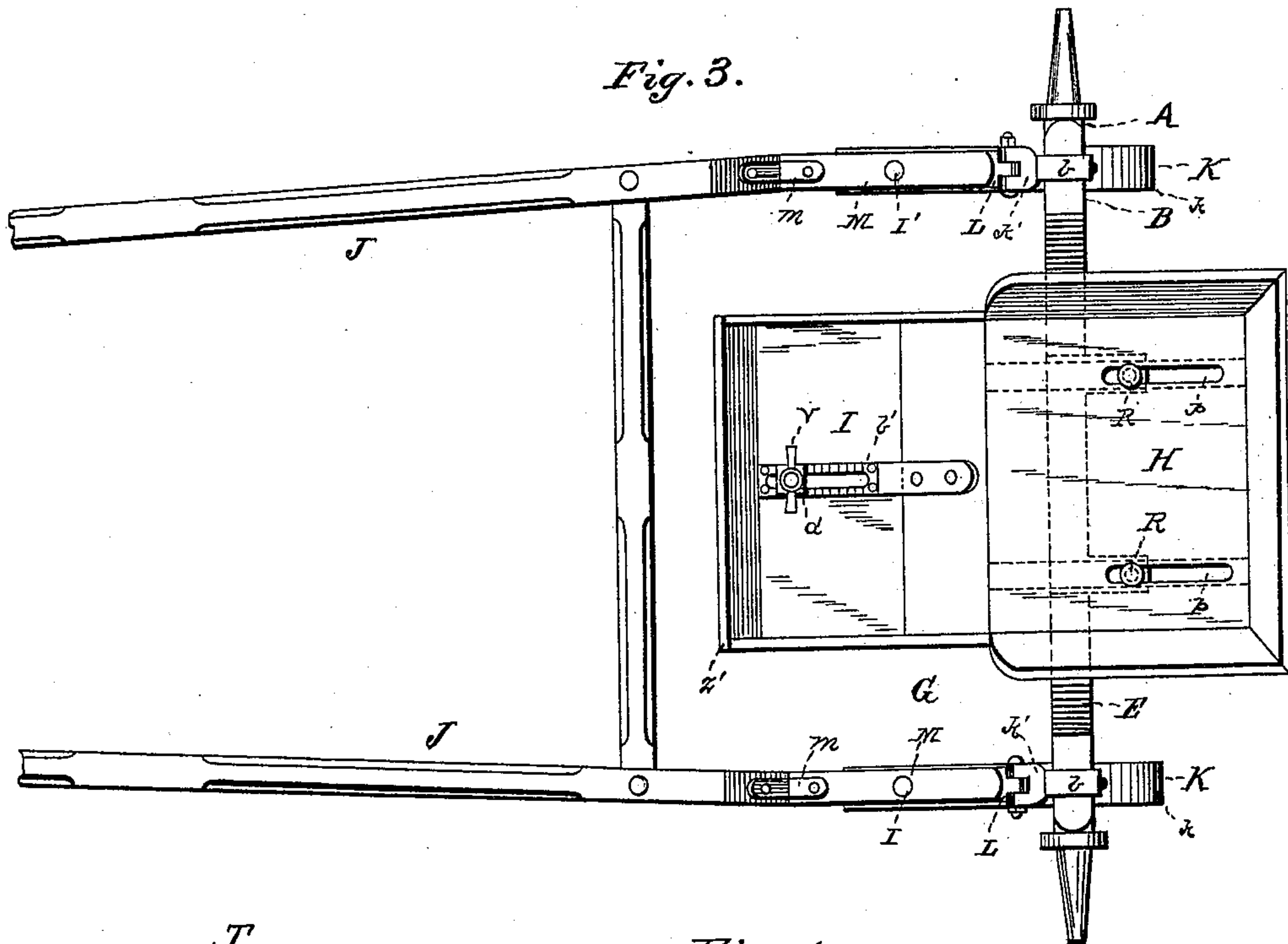
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UNITED STATES PATENT OFFICE.

FRANK H. BONI, OF SIOUX CITY, IOWA.

ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 405,074, dated June 11, 1889.

Application filed April 18, 1888. Renewed March 26, 1889. Serial No. 304,921. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. BONI, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Road-Carts; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a side elevation of my improved cart. Fig. 2 is a back end view. Fig. 3 is a plan view. Fig. 4 is a bottom view of the body. Figs. 5, 6, and 7 are detail views of parts.

The invention relates to road-carts; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the drawings, and pointed out in the appended claims.

Referring to the drawings by letter, A designates the axle; B, the axle-stock, preferably of wood, connected to the upper side of the axle by the clips *b b* near its end, and C the head-block, also preferably of wood, and connected to the upper side of the axle-stock by the long clips *c c* at equal distances from the center and passing below the axle.

The elliptic spring, consisting of the upper section E and lower section F, is secured to the upper side of the head-block by the clips *f f*, near the center of the lower section and equally distant therefrom.

G is the body of the cart, consisting of the seat H and the foot-rest I, to the outer end of which is secured the dasher *z'*, and J J are the thills.

K K are the similar longitudinal side springs, curved upwardly and forwardly at their rear ends *k*, and secured to the lower side of the axle by clips, as shown, the ends being extended laterally and perforated to receive the clip-bolts.

k' k' are eyes or perforated lugs secured to and standing forward from the axle, upon which lugs the rear ends of the angle-braces L are hinged, the front ends of the braces

being bolted or otherwise secured to the corresponding thills at suitable points.

M M are short arms secured by bolts upon the horizontal portions of the corresponding angle-braces, and *m m* are short angle-irons through which the rear downwardly-curved ends of the thills are bolted to the arms M. The front ends of the springs K are connected to the lower surfaces of the short arms M by bolts and nuts I, which bolts pass through eyes in expanded portions of the braces L. The thills are thus both braced and supported on springs independent of the elliptic spring that supports the seat or body.

N is the central longitudinal spring, similar in shape to the side springs L, and similarly secured to the axle by clips *n*, its front end being attached to the vehicle-body by means hereinafter described.

O O are metal straps, provided with the longitudinal slots *o o*, and secured beneath the seat and the part of the body connecting the seat and foot-rest at equal distances from the center of the body. The said straps are secured to wooden strips P, which are fixed upon the bottom of the seat, and are provided with slots *p*, registering with the slots *o* in the straps.

Q is a strong metal strap, secured longitudinally, by bolts or otherwise, at its central flat portion to the upper surface of the middle part of the upper section E of the elliptic spring. The said strap has its end portions bent upward and then rearward, and provided with openings for the passage of the attaching and adjusting bolts R, the heads of which rest upon the upper surfaces of the wooden strips P, whence the bolts pass downward through the slots *p* and *o* and the openings *g*, and engage the thumb-nuts *r* below said openings.

S is a metal strap, provided with the longitudinal slot *s*, and secured centrally to the lower surface of the foot-rest, and T is a bolt that passes through said slot (which extends also through the foot-rest) and through an opening *t* in the front end of the central spring N. The tapped end of the bolt T engages a thumb-nut V, as shown, and a corrugated washer *a'* is placed on the bolt beneath the nut, the corrugations of which engage

corresponding corrugations in the slotted plate *b'*, secured to the top side of the foot-rest. By means of the slotted straps O and S and the corresponding bolts and thumb-nuts, the body can be adjusted forward and backward on the running-gear, so that however loaded the vehicle may be the seat will remain level.

The bolts R and T are preferably made with their parts that rest in the corresponding slots flattened, so that they will not swing or have any lateral motion in said slots.

Having described my invention, I claim—

1. The combination, with the axle, of the thills, the angle-braces connecting the thills and axles, the short arms secured upon the rear horizontal portions of the corresponding angle-braces, and the curved side springs having their rear ends secured to the axle by clips or otherwise and their front ends secured to the corresponding short arms, the bolts passing through eyes in the underlying angle-braces, substantially as specified.

2. The combination, with the axle, the head-block, and the transverse elliptic spring, of the body, the slotted metal straps secured to the bottom of the seat and foot-rest, the strong metal strap bolted to the upper section of the elliptic spring and having upturned perforated ends, the curved central

longitudinal spring secured to the axle at its rear end and having its front end perforated, and the adjusting bolts and nuts, substantially as specified.

3. The combination, with the axle, head-block, elliptic spring, and body, having its foot-rest slotted longitudinally and centrally, of the slotted metal strap secured to the upper surface of the foot-rest, with the slot coincident with the slot thereon, the curved central longitudinal spring secured to the axle at its rear end and having its front end perforated, the adjusting bolt and nut, the corrugated washer, and the corrugated slotted plate, substantially as specified.

4. The combination, with the axle, head-block, elliptic spring, and the strap secured centrally to the upper section of said spring and provided with upturned perforated ends, of the body supported on a longitudinal spring under its foot-rest, the slotted straps secured under the seat, and the adjusting bolts and nuts, substantially as specified.

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

FRANK H. BONI.

Witnesses:

E. S. VOORHIES,
P. J. OAKLEAF.