

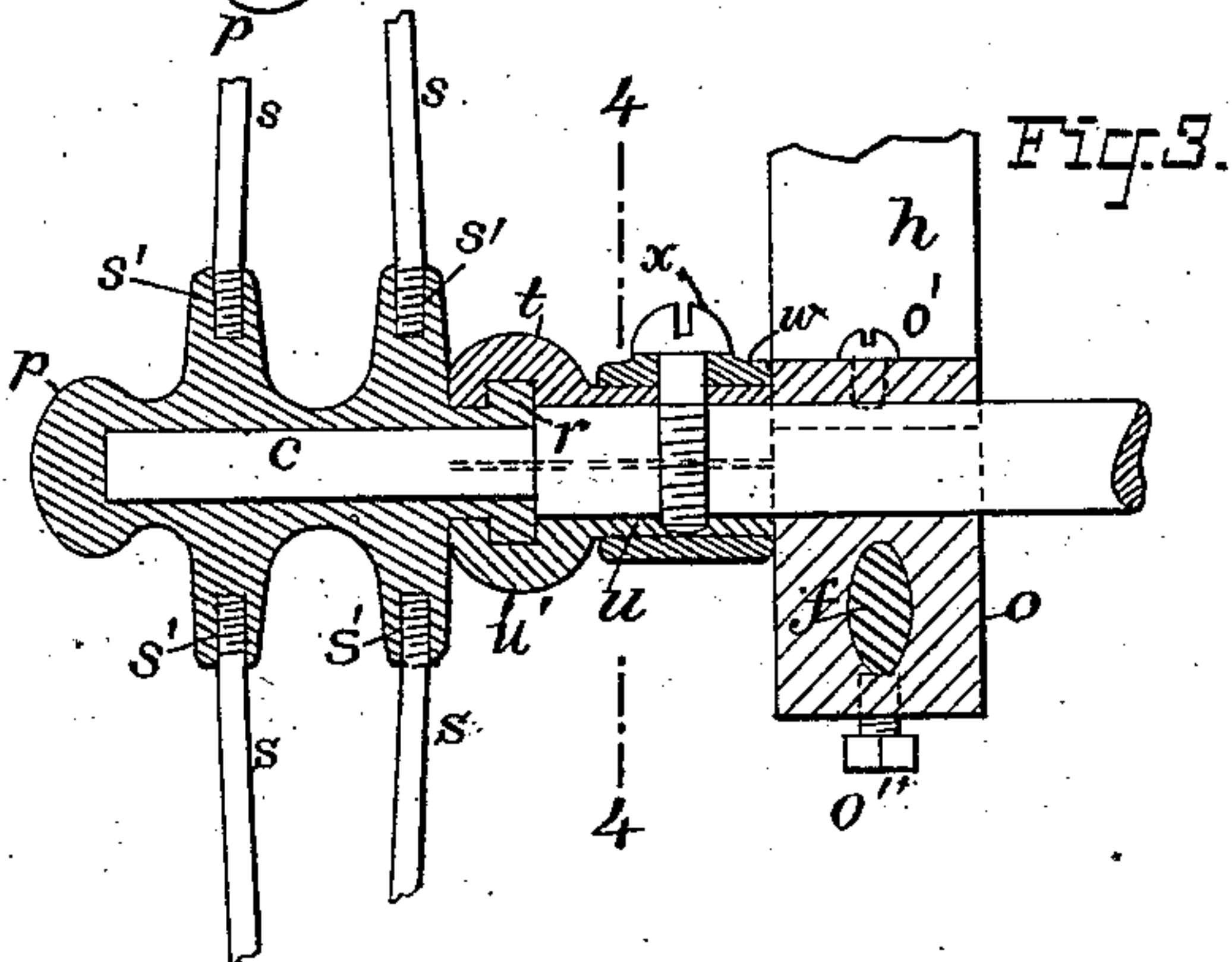
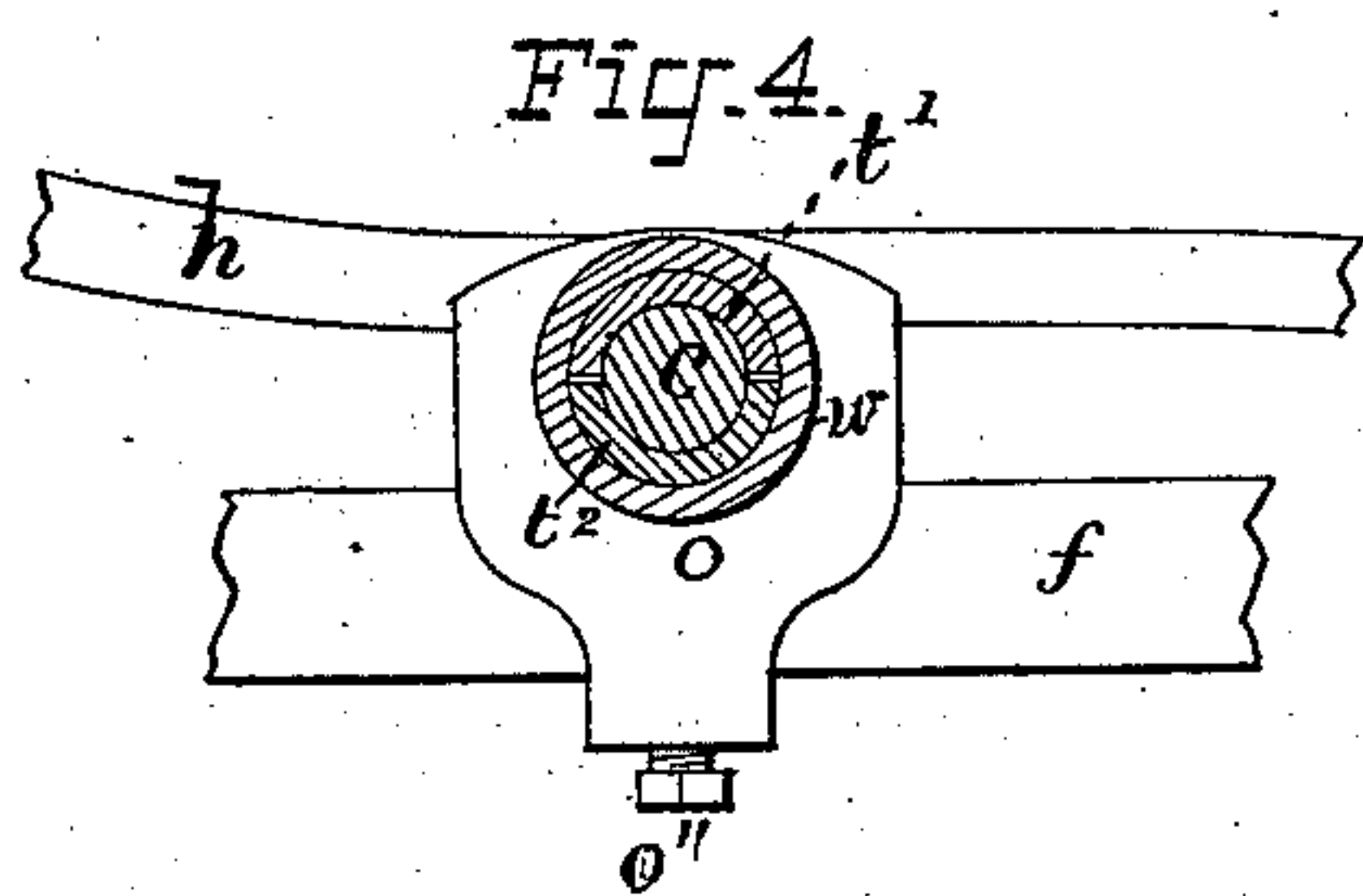
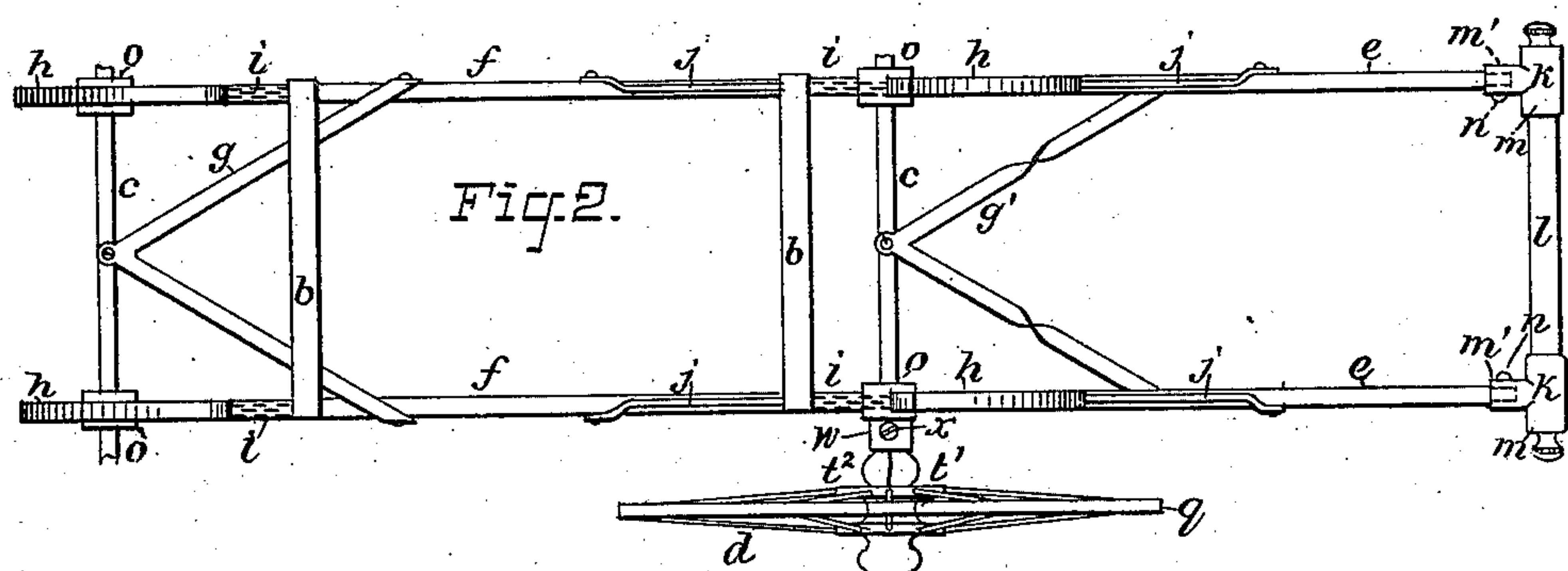
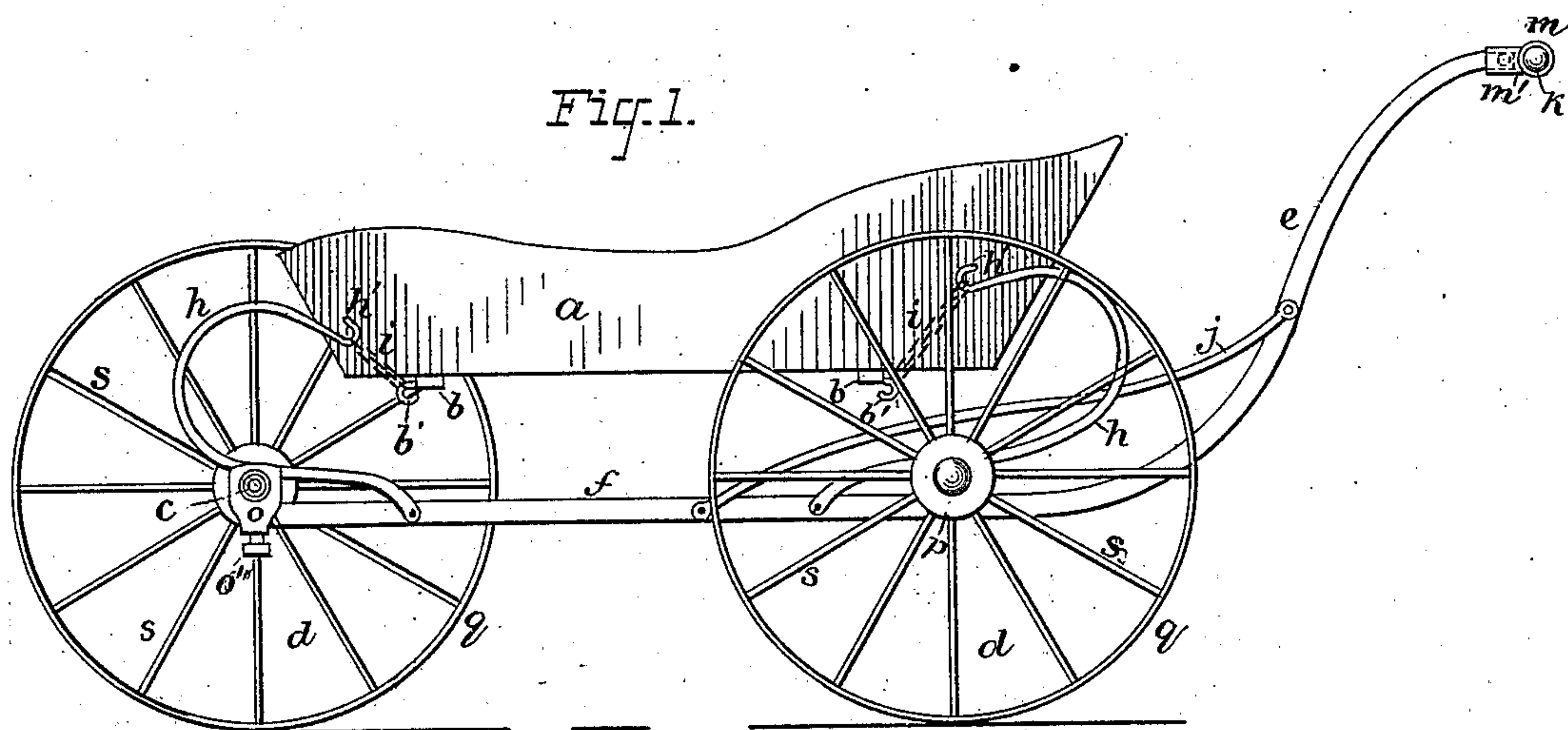
(No Model.)

J. POOLMAN & F. R. MARKS.

CHILD'S CARRIAGE.

No. 294,668.

Patented Mar. 4, 1884.



ATTEST:

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UNITED STATES PATENT OFFICE.

JAMES POOLMAN AND FRANK R. MARKS, OF NEW YORK, N. Y.

CHILD'S CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 294,668, dated March 4, 1884.

Application filed April 26, 1883. (No model.)

To all whom it may concern:

Be it known that we, JAMES POOLMAN and FRANK R. MARKS, citizens of the United States, both residents of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Children's Carriages, of which the following is a specification.

Our invention relates to improvements in that class of carriages designed principally for the use of children; and the objects of our improvements are to provide an elastic bearing for the body of the carriage, whereby it is suspended above and is connected to the running-gear, and to provide a means for detachably connecting the handle and push-bars, all as will be more fully hereinafter described. These objects we attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a carriage embodying our improvements, one of the front wheels being removed. Fig. 2 is a plan view, the body being removed. Fig. 3 is a longitudinal section of the hub of the wheel, showing its adjustment on the axle and locking device and the manner of inserting the spokes; and Fig. 4 is a vertical section through the hub, taken on line 44 of Fig. 3. In both Figs. 3 and 4 the hanger-block for the axle and reach-bar is shown.

a represents in general the body portion of the carriage, and *b b* two flat bars secured crosswise to the under side thereof, which form the frame on which it rests, and serve as a means for connecting it with the running-gear frame.

c c represent the front and rear axles, upon which are mounted the wheels *d d*.

e e are the push-bars, the inner ends of which are continued to form reach-bars *f*, which extend across and connect the axles. To prevent any tendency of the spreading apart of the reach-bars we employ a V-shaped brace-bar, *g*, each end of said bar being secured to the reach-bar about midway between the axles by a screw and nut, and the center to the front axle by a similar fastening.

To the inner side of the push-bars *e* are riveted the two ends of another V-shaped brace, *g'*, which is secured at its center by a screw

which passes through the rear axle and is held by a nut.

At each end of the running-gear frame are arranged a pair of curved standards, *h*, made preferably of malleable iron, from which the body *a* is suspended. These standards or supports are bent upwardly and inwardly, and the end is bent backward to form a hook or loop, *h'*. The cross-bars *b*, which are secured to the under side of the body *a*, are similarly provided with the hook end *b'*.

To the end *h'* of the support *h* is secured one end of a flat open-link chain, *i*, the other end of which is engaged with the hook end *b'* of the bar *b*. Hung in this manner both at the front and rear, the body *a* is free to swing on its elastic bearings, and consequently has an easy rocking movement when the carriage is propelled over an uneven surface, instead of a jolting motion.

j j are brace-rods, arranged on the rear of the carriage, which are secured to the push-bars *e* at one end and to the reach-bars *f* at the other, passing through a perforation in the curved supports *h*.

k represents a device for securing the handle *l* detachably to the push-bars *e*. This coupling is of T shape, the head *m* being tubular to receive the ends of the handle. The neck *m'* is provided with a socket to receive the end of the push-bar. A screw, *n*, secures the end of the push-bar in position. By removing the screw the handle is released, and the coupling may be easily slipped off the ends.

On the lower end of the standards or supports *h* is cast the hanger *o*, through which the ends of the axle pass. These hangers likewise furnish the bearings for the reach-bars *f*, and the axles and reach-bars are held firmly therein by a screw, *o'*, and nut *o''*, as shown. The hanger-block *o* is preferably cast in one piece with the standard. In the present instance we have shown the suspension device for hanging the body *a* from the standards as consisting of a flat-link chain or band; but this is a matter of preference only, as any other means may be employed—such as a flexible band, strap, or chain, whereby the body is permitted a free oscillating or rocking motion.

Having now described the method of sus-

pending the body of the carriage and connecting it to the running-gear frame, we will proceed to describe the wheel and its method of attachment to the axle. In order to better illustrate this part of our invention, we have shown the hub of one wheel and its axle-connections in longitudinal section. (See Fig. 3.)

p represents the hub of the wheel, q the rim, and s the spokes, which radiate from two points on the hub, similar to a bicycle-wheel. The hub p has a closed outer end, and is provided with a deep socket adapted to receive the end of the axle. A rib or collar, r , is formed on the outside of the inner end. t represents the locking device for securing the hub of the wheel to its axle. This consists of a box, which is divided longitudinally into two equal sections, t^1 and t^2 , having a sleeve or neck portion, u , adapted to inclose the axle, and a globe-shaped head portion, u' , adapted to receive the inner end of the hub of the wheel. A recess or groove is provided in the head portion u' , into which the rib or collar r on the inner end of the hub fits, and within which it revolves. w represents a sleeve, which slips over the neck portion u to bind the sections together. Instead, however, of using an independent sleeve, as here shown, for confining the two parts of the sectional locking device together, a suitable tubular projection or sleeve may be cast on the hanger-block o to receive the two sections and hold them together.

In attaching the wheel to the axle, the two halves of the head portion u' of the locking-box t are fitted over the inner end of the hub, the projection or collar r taking into the recess or groove, whereby the hub is locked in the box, and the sleeve w is slipped over the two sections forming the neck portion. The hub and its attached sectional box are then ready to receive the end of the axle. The sleeve and box are then secured together and to the axle by means of a screw, x . Constructed in the manner shown, the hub, when secured to the axle, forms a complete cap over that end of the axle which is generally exposed, and receives the nut in the ordinarily-constructed wheels. This serves as a perfect protection

against any accumulation of dirt or dust at this point. The clamping-box, which retains the inner end of the hub, fits snugly up against the inner face of the hub, and when secured, as shown, to the axle, holds the whole firmly together, so that any lateral movement of the wheel is absolutely impossible.

The spokes s are provided with a screw end, s' , which is screwed into a suitably-threaded hole in the hub. After being screwed into the hub, the spokes are set by a gage to secure uniformity, and their outer end is passed through holes formed in the rim and fastened on the outside by a countersunk rivet, the holes in the rim to receive the end of the spokes being formed tapering inwardly, as shown at z in the sectional fragmentary view of the rim, Fig. 3, for this purpose.

Having now described our improvements, what we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, in a child's carriage, of upwardly-turned supporting-bars connected to the running-gear frame, and arranged on each end thereof, and a flexible chain depending from the upper end of said supports, with the body a , provided with the cross-bars b , having a loop or hook end for engaging the opposite end of said chain, whereby the body is suspended elastically above the running-gear frame, substantially as set forth.
2. The standard or support h , provided with the hangers o , to receive the axle and reach-bar, substantially as shown and described.
3. In the running-gear frame, the combination of the reach-bars f , axles c , and standards h , having the hanger-blocks o , to receive the ends of the said reach-bars and axles, as set forth.
4. The combination of the reach-bars f , axles c , and V-shaped brace-bars g , connecting the said reach-bars and the axles, substantially as and for the purpose set forth.

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Witnesses:

JAMES GRAY,
L. RASMUSSEN.