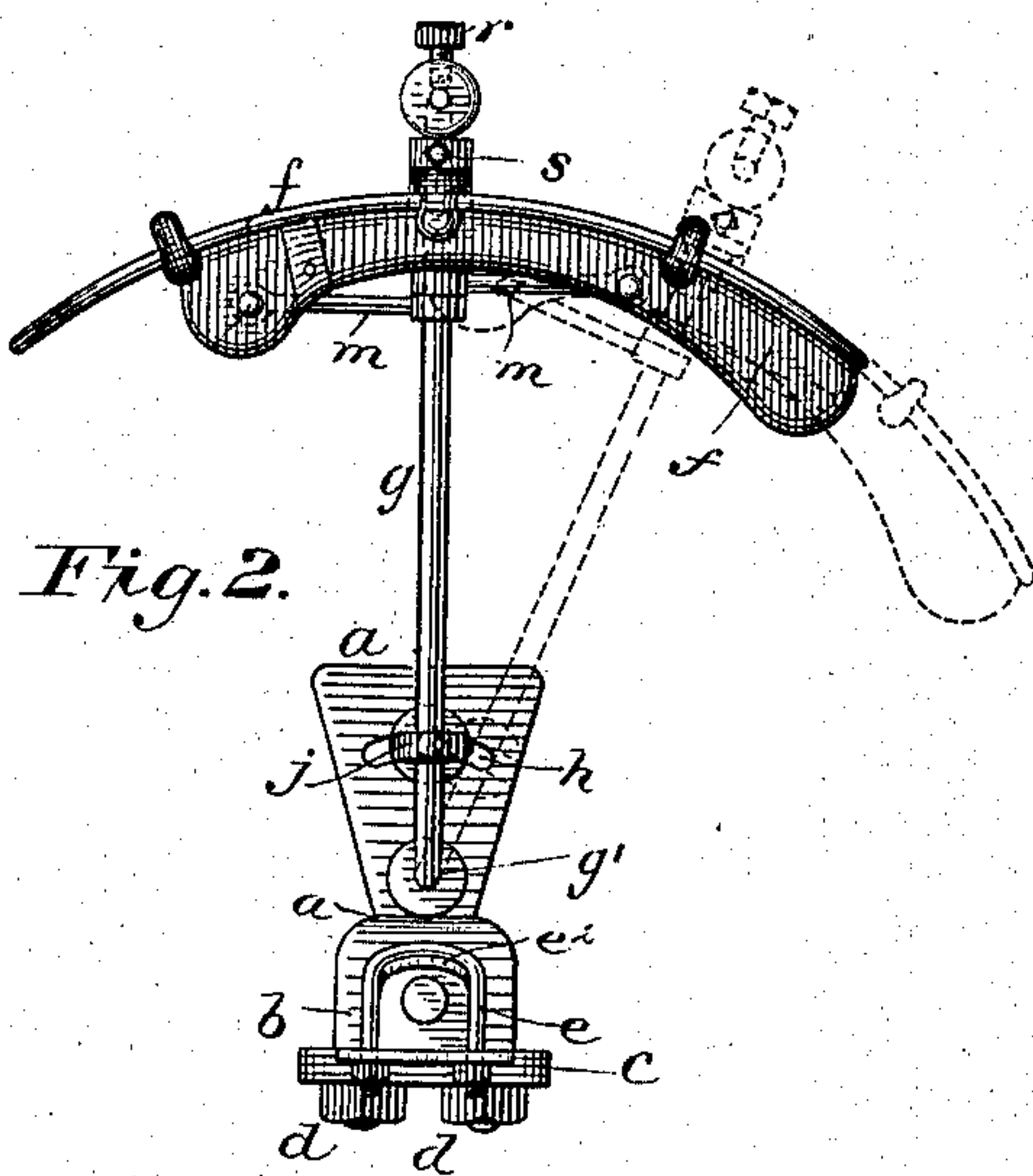
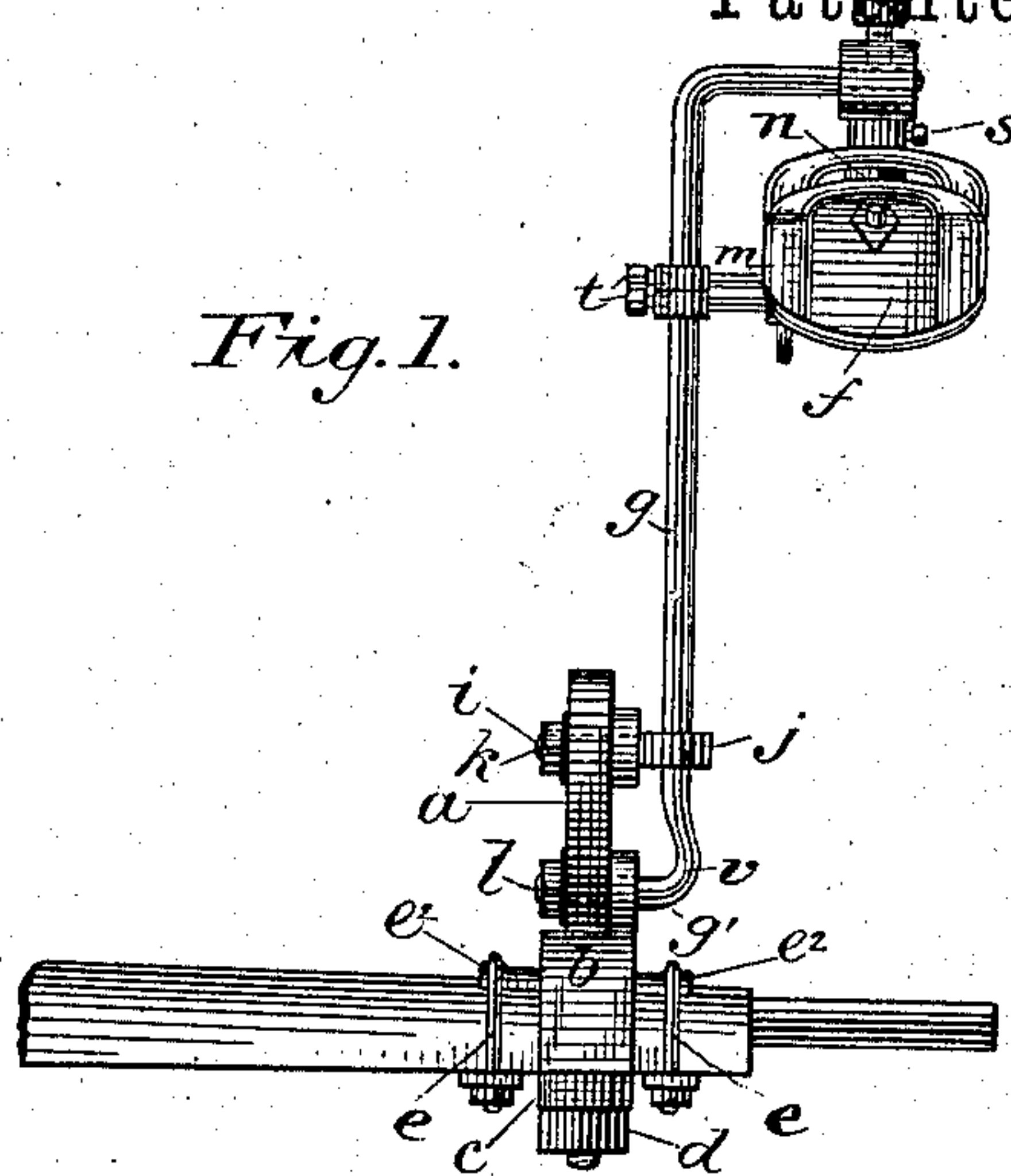


(No Model.)

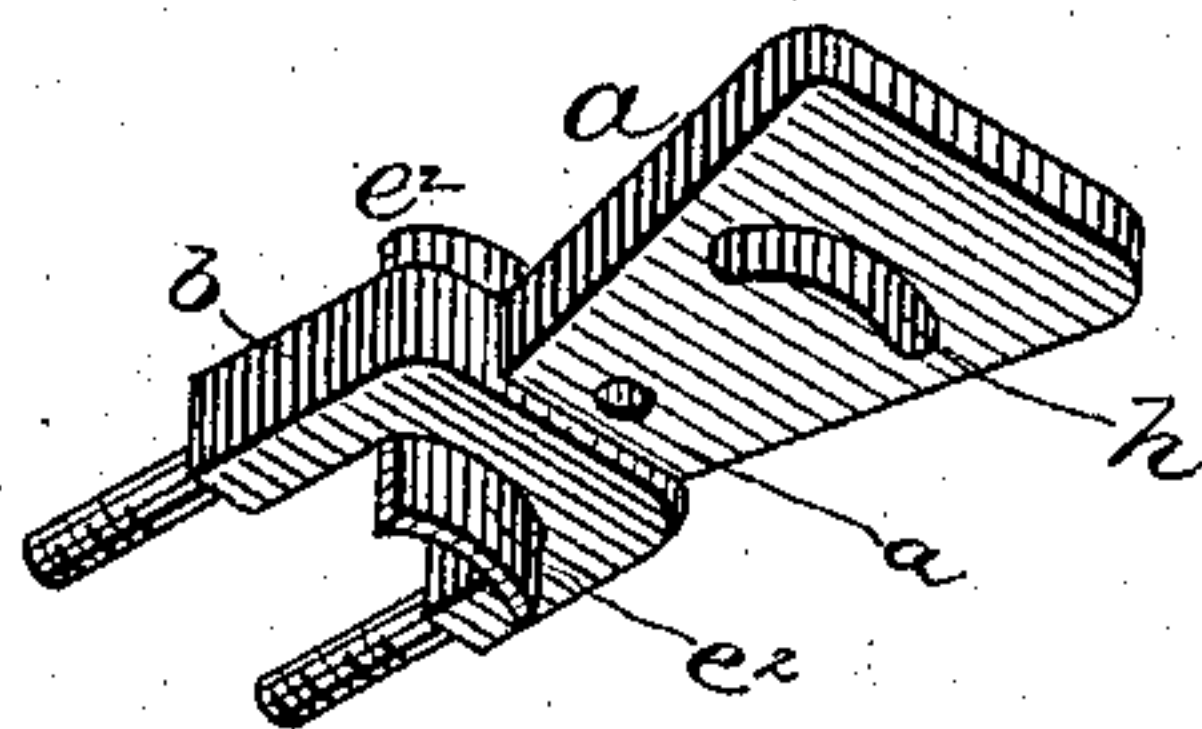
L. H. WOODEN.  
CARRIAGE FENDER.

No. 322,404.

Patented July 14, 1885.



*Fig. 3.*



Witnesses  
R. E. Grant  
G. E. Tucker

Lewis H. Wooden, Inventor  
By his Attorneys Johnson & Johnson



# UNITED STATES PATENT OFFICE.

LEWIS H. WOODEN, OF HAMPSTEAD, MARYLAND, ASSIGNOR OF ONE-THIRD  
TO WILLIAM WESLEY WAREHEIM, OF SAME PLACE.

## CARRIAGE-FENDER.

SPECIFICATION forming part of Letters Patent No. 322,404, dated July 14, 1885.

Application filed May 13, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS H. WOODEN, a citizen of the United States, residing at Hampstead, in the county of Carroll and State of Maryland, have invented new and useful Improvements in Carriage-Fenders, of which the following is a specification.

The object of my improvement is to provide a fender attachment adapted for use with spring and with non-spring vehicles—that is to say, supporting the fender independent of the body and independent of the action of the springs, and thereby prevent the contact of the fenders with the wheels.

By my present improvement the fenders have a fixed relation with the axle, and is made adjustable thereon to set the fenders forward or backward over the wheel, as may be found necessary to prevent the throwing off of the mud. The attachment is clipped to the axle, and the fender-carrier is rigidly supported by such attaching device, giving convenience for such attachment and facility for setting the fender in the proper position.

Referring to the accompanying drawings, Figure 1 represents my improved fender attachment in side view, mounted upon the axle; Fig. 2, a view looking endwise at the axle, showing by dotted lines the fender in its extreme positions of adjustment in relation to the wheel, and Fig. 3 the slotted axle-clip-ping standard.

A short standard, *a*, has a forked or divided end, *b*, by which it is clipped to the axle by a tie-bar, *c*, and screw-nuts *d*, or in any suitable way. Supplemental clips *e*, passing over arms *e*<sup>2</sup>, serve to bind this standard upon the axle and to support it against the thrusts of the fender-carrier.

The fender or wheel-guard *f* is of the usual construction, and is suspended by a carrier-rod, *g*, having its upper end bent horizontally outward as the suspending-point, while its horizontal end *g'* is bent horizontally inward, by which it is pivotally connected to the clip-standard. This standard has a slot, *h*, at its upper end, describing an arc struck from pivotal connection of the carrier-rod, and a screw-bolt, *i*, passing through said slot, serves to connect said carrier-rod to the standard.

This connection is made by a screw-bolt having an eyed head, *j*, through which the carrier-rod passes vertically at the outer side of the clip-standard, while a nut, *k*, on the inner end of said bolt, serves to clamp the carrier-rod when the fender is properly set. The bolt and the fender-rod have collared bearings upon the standard, and the pivoting-connection of the carrier-rod is secured by a screw-nut, *l*, both fastening-nuts having washer-bearings upon the inner side of the clip-standard.

The fender is connected by its side shield to the carrier-rod by two braces, *m*, while the point of suspension is made by a connection that will permit the fender to be firmly clamped to the carrier-rod cross-bar by a nut, *n*, on the lower end of the suspending-stem. Provision is made by screws *r s t* for setting the fender pivotally upon its suspending-stem; or it may be connected to the carrier-rod in any suitable way.

The provision for setting the fender forward or backward is important to suit the condition of the roads and the character of the vehicle or style of body, so as to prevent the wheel from throwing the mud upon or into the body.

In Fig. 2 the full lines show the fender set vertically and the dotted lines show it set back.

At a point between the pivotal connection and the adjustable fastening device of the carrier-rod it has bend *v*, which has a flat formation tempered to render it elastic for the purpose of counteracting the vertical jerking action of the wheels in passing suddenly into depressions, and thereby relieves sudden thrusts upon the fender and its suspending-connection. This provision gives a sort of elastic support for the fender; but such yielding provision may be at the point from which the fender is suspended.

I claim—

1. The clip-standard having a curved slot near its upper end, in combination with a fender and a carrier-rod therefor pivotally connected to said clip-standard, and adjustably clamped by a fastening through said slot above the pivotal connection, substantially as herein set forth.

2. The combination of a fender or wheel-guard with a carrier-rod therefor and a clip-standard, the said carrier-rod being secured to the said clip-standard at two points, and  
5 having an integral spring formation between these points, substantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LEWIS H. WOODEN.

Witnesses:

JOHN H. QUAIL,  
GEO. W. GARDNER.