(No Model.)

# J. MOOREN.

## WAGON BODY SUPPORT.

No. 361,017. Patented Apr. 12, 1887.

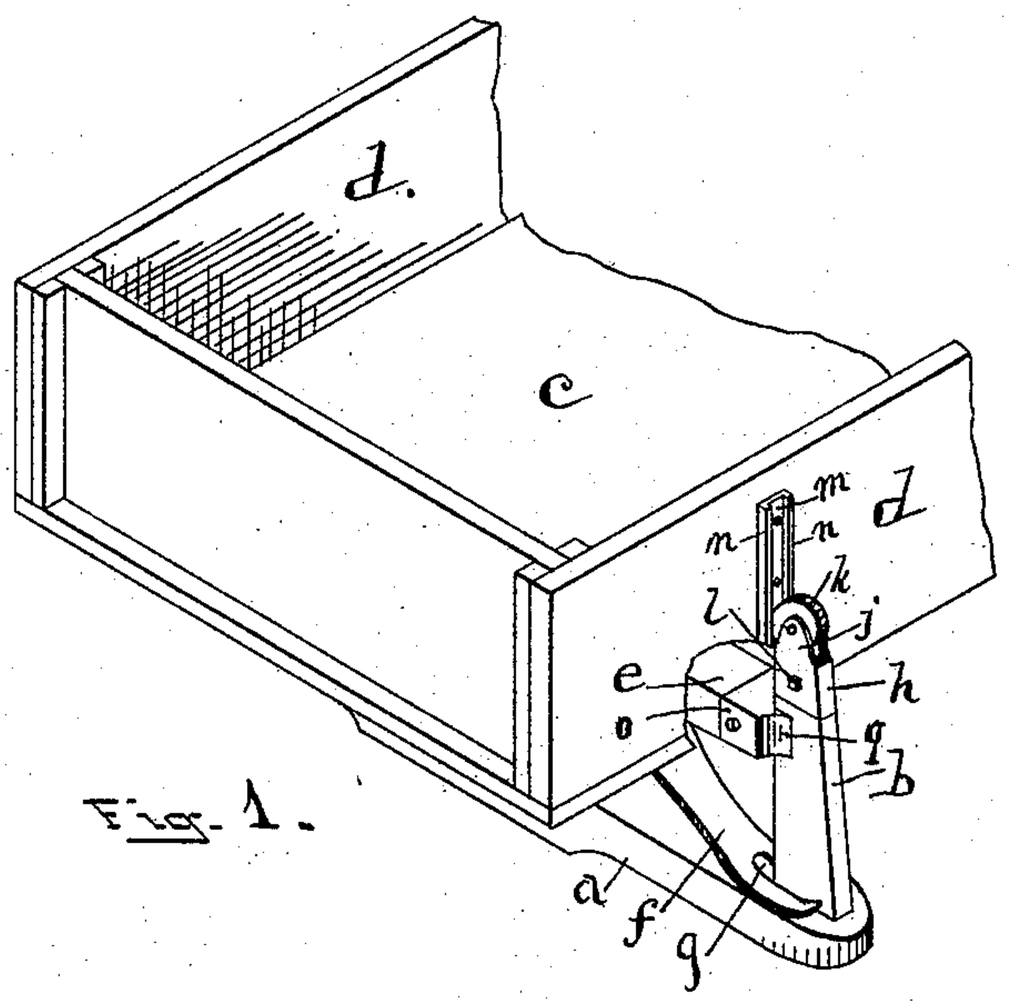


Fig. 1.

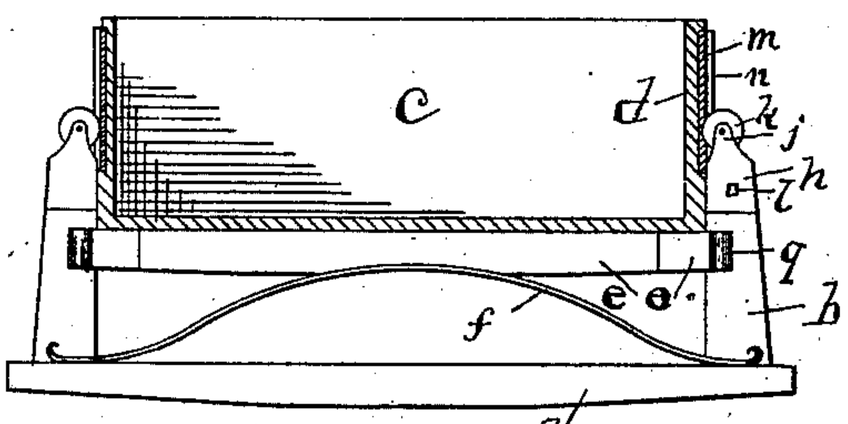


Fig. 2.

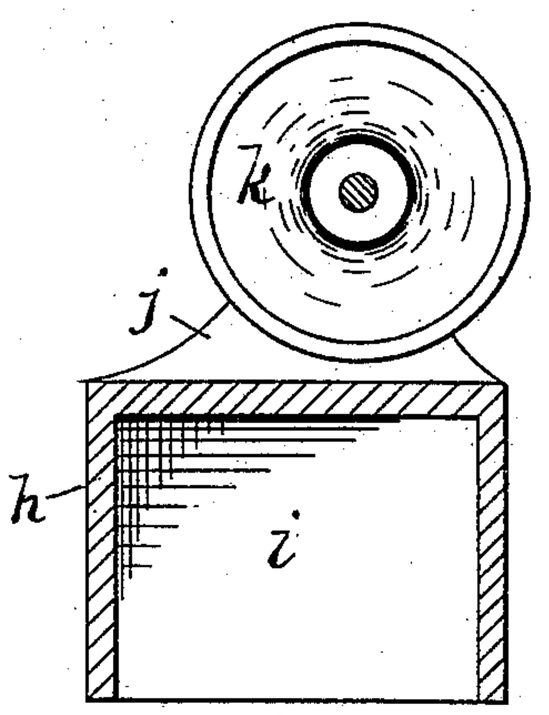


Fig. 3.

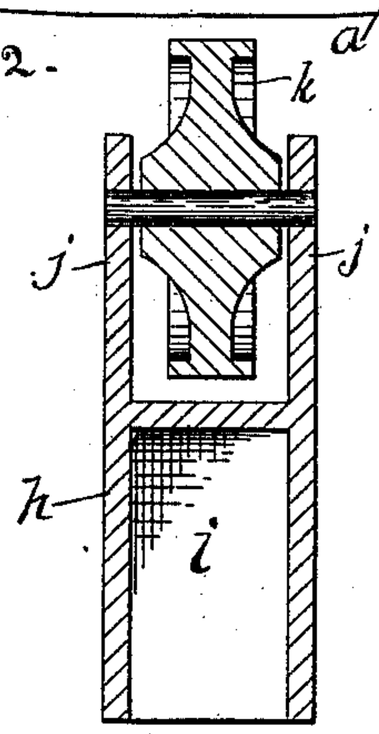


Fig. 4.

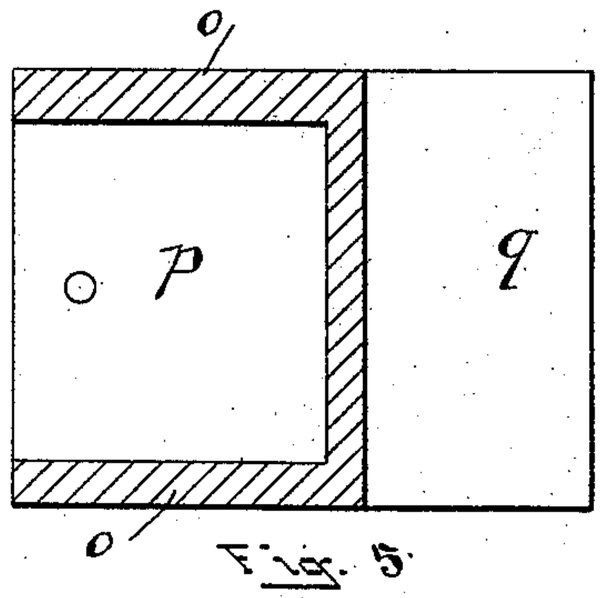


Fig. 5.

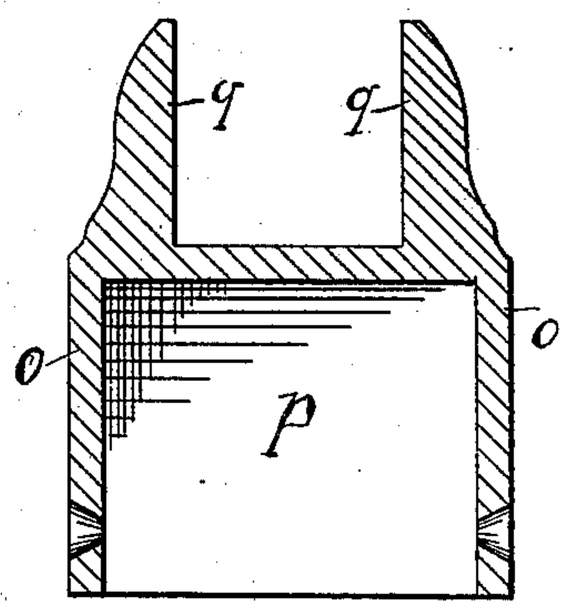


Fig. 6

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# UNITED STATES PATENT OFFICE.

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## WAGON-BODY SUPPORT.

SPECIFICATION forming part of Letters Patent No. 361,017, dated April 12, 1887.

Application filed January 26, 1887. Serial No. 225,603. (No model.)

*To all whom it may concern:*

Be it known that I, JOHANNES MOOREN, a citizen of the United States, residing at Essexville, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Wagon-Body Supports; 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 the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in devices for supporting the bodies of lumber or farm wagons of different sizes, and is designed to be used in connection with a curved or half-elliptic spring placed beneath and supporting the body on its central portion and with its ends resting upon the bolster, the bolster-stakes preventing a lateral movement of the body and also retaining the spring in position at its ends. A great trouble and annoyance and expense attend the use of these springs as commonly constructed, on account of the continued wear of the bolster-stake against the sides of the body, and also the bed-piece beneath the body, to which is secured the upper curved portion of the spring, and also on account of more or less binding and catching of the side-boards of the body against the stakes, which is liable to occur, more especially when the body is loaded so as to spring outward upon the sides thereof; and my invention consists in devices for reducing the friction and wear upon the sides of the body and in the combination and construction of the several portions of the device; and the objects of my invention are to provide a means of overcoming these difficulties and annoyances and form a supporting device which will be cheap and easily constructed, and that will obtain a freer and easier action of the springs and prevent the wear and mutilation of the sides of the body, and that will form a stronger and better supporting bed-piece than those heretofore in common use. I attain these objects by means of the devices illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the end portion of a wagon body and bolster with my improvement attached thereto. Fig. 2 is a side view of the bolster and showing section of the body. Fig. 3 is a vertical section of the roller attachment. Fig. 4 is a transverse section of Fig. 3. Fig. 5 is a vertical section of the end of the bed-piece detached. Fig. 6 is a longitudinal section of the same.

*a* represents the bolster of an ordinary wagon.

*b* are the bolster-stakes.

*c* is the body, resting between the stakes *b* and with its sides *d* resting against the inner edges of the stakes.

*e* is a bed-piece placed with its ends resting against the stakes and beneath and supporting the body.

*f* is a curved spring, with its convex side resting against the central part of the under side of the bed-piece *e*, and with its downward and outward extending end portions resting upon the upper side of the end portions of the bolster. The outer ends of this spring are slightly curved upward and may be provided with a notch, *g*, which allows a portion of each side of the spring to extend on each side of the bolster-stake and operates to retain the ends of the spring in a proper position laterally, the notches extending inward to some distance to allow the ends of the spring to extend outward when a load is placed upon the body.

*h* is a piece of cast metal provided with a socket, *i*, which fits over the upper end of the bolster-stake and secures the piece *h* in position by a pin or bolt, *l*, passing through the piece *h* and stake, and above the socket portion is formed the upward-extending lugs *j*, and between these lugs is placed a roller, *k*, and is supported in position by a pin which passes through the lugs and roller. The periphery of this roller extends inward somewhat beyond the inner edge of the bolster-stake, so that the roller will bear against the outside surface of the side *d*, and operates to retain the sides of the body in position and allow an easy vertical movement of the body upon the springs without binding the body between the bolster-stakes, and also prevents any abrasion or mutilation of the surface of the sides thereof by the bolster-stakes and allows a free movement of the body when loaded to

crowd the sides outward, and which, when placed between the stakes without the rollers, binds the body between the stakes and operates to hold rigidly the body in one position.

By supporting the body in position by the piece *h* and the socket *i*, the piece may be quickly and easily removed, when required, by withdrawing the pin or bolt *l*, and the bolster-stakes may then be used without the body. In order to further prevent abrasion and wear of the sides *d*, a plate of metal, *m*, is secured to the outside surface of the sides and provided with the outward-extending flanges *n*. This plate prevents the roller from pressing into the surface of the side *d*, and the flanges prevent any lateral movement of the roller against the sides and retain the stake in a vertical position.

The ends of the bed-piece *e* are provided with a metal piece, *o*, having a socket, *p*, which passes over the end of the bed-piece and is secured thereon by screws or bolts, and its outer end is provided with the forward-extending lugs *q*, which reach for a short distance on each side of the bolster-stake. These lugs retain the bed-piece in position between the stakes and allow a free vertical movement of the bed-piece, and form a cheap and effective device which may easily be attached to any wagon having a bed-piece.

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

1. In a wagon-body support, the combination, with the bolster *a*, the stake *b*, the bed-piece *e*, the spring *f*, and body *c*, having the sides *d*, of the piece *h*, provided with a socket, *i*, upon the upper end of the stake, and having the upward-extending lugs *j*, and the roller *k*, pivoted between the lugs, substantially as herein set forth.

2. In a wagon-body support, the combination of the bolster having the stakes *b*, the bed-piece *e*, beneath the body, the spring *f*, beneath and supporting the bed-piece, and the body *c*, having the sides *d*, with a plate, *m*, secured to the sides of the body and provided with the vertical flanges *n* on its edges, and a piece, *h*, provided with a socket, *i*, upon the upper end of the stake and having the upward-extending lugs *j*, and the roller *k*, pivoted between the lugs and with its outer edge bearing against the plate *m* between the flanges, substantially as herein set forth.

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

JOHANNES MOOREN.

Witnesses:
J. E. THOMAS,
W. H. POWER.