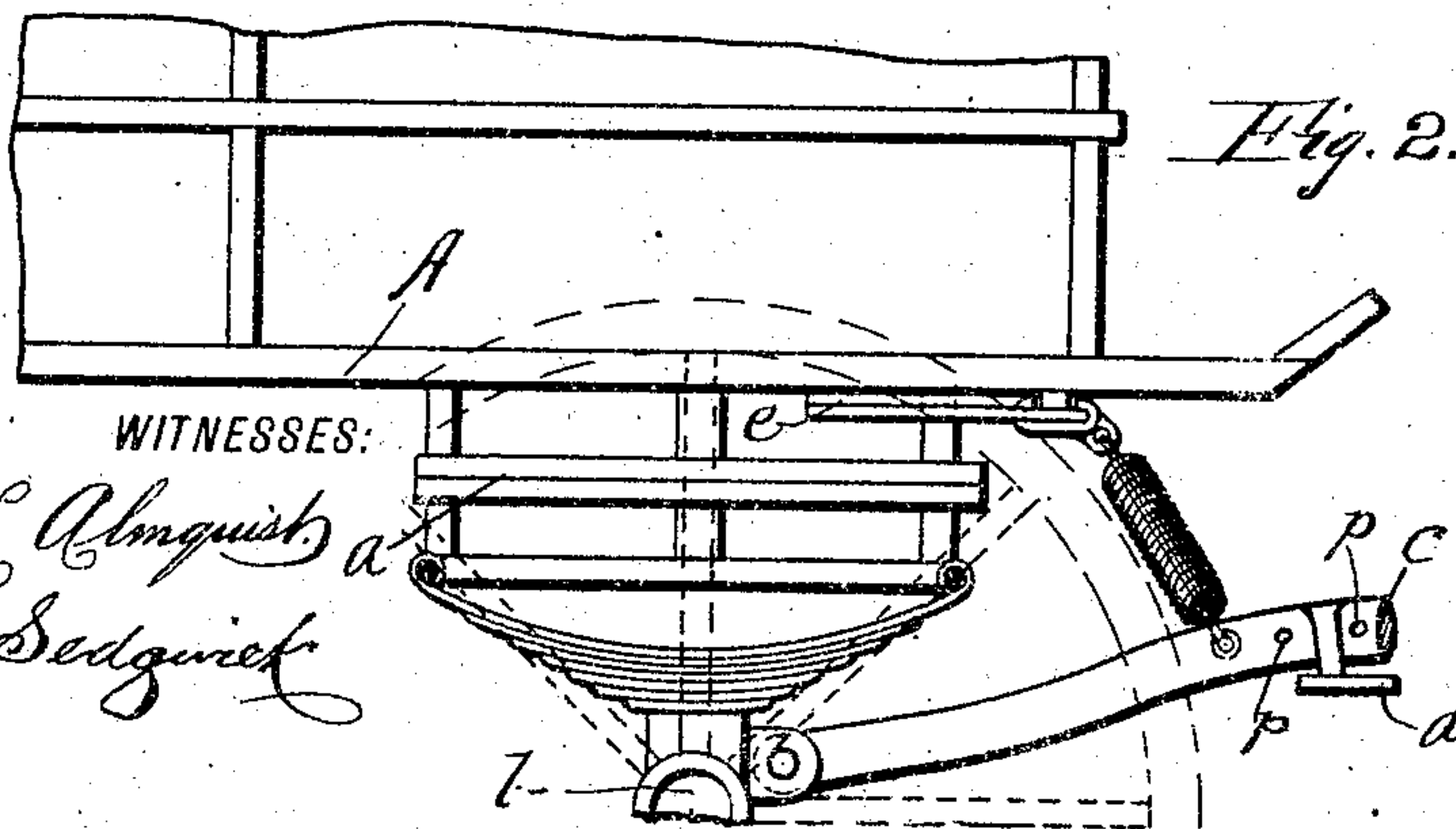
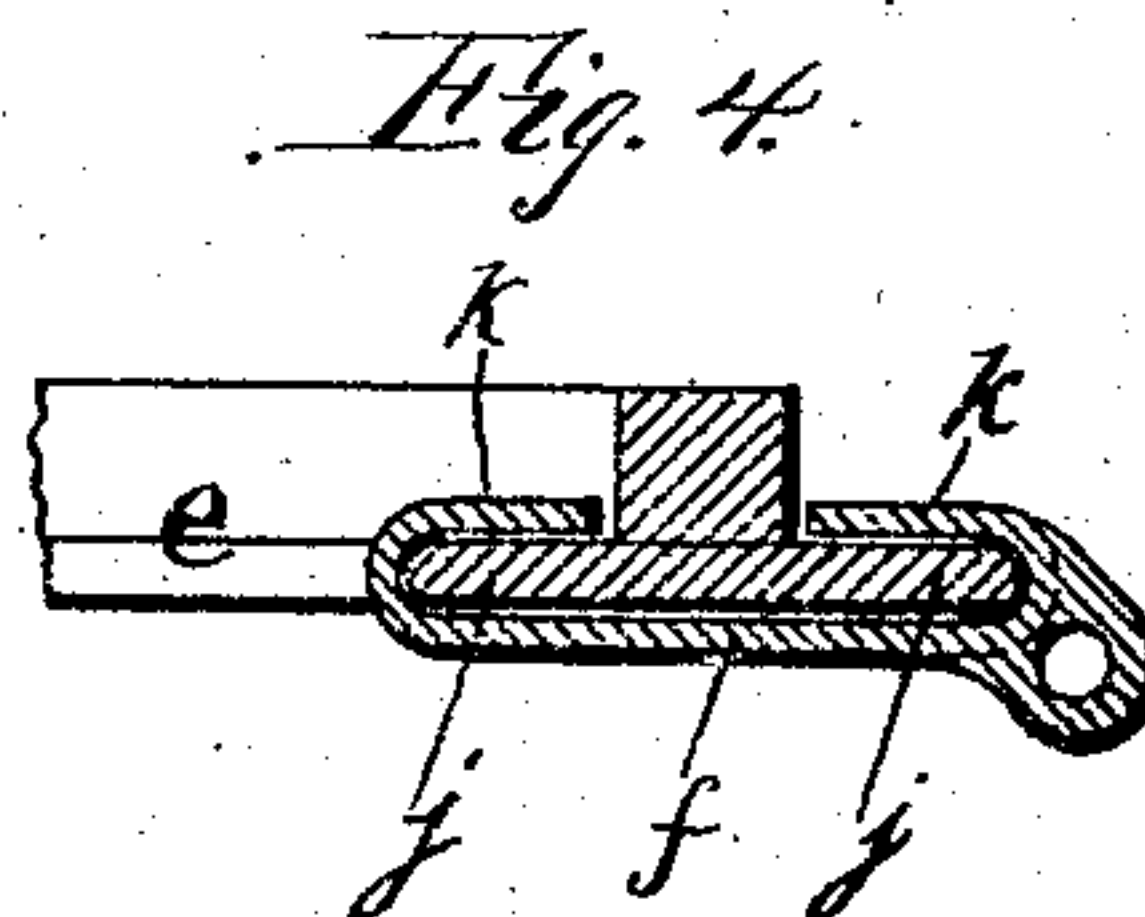
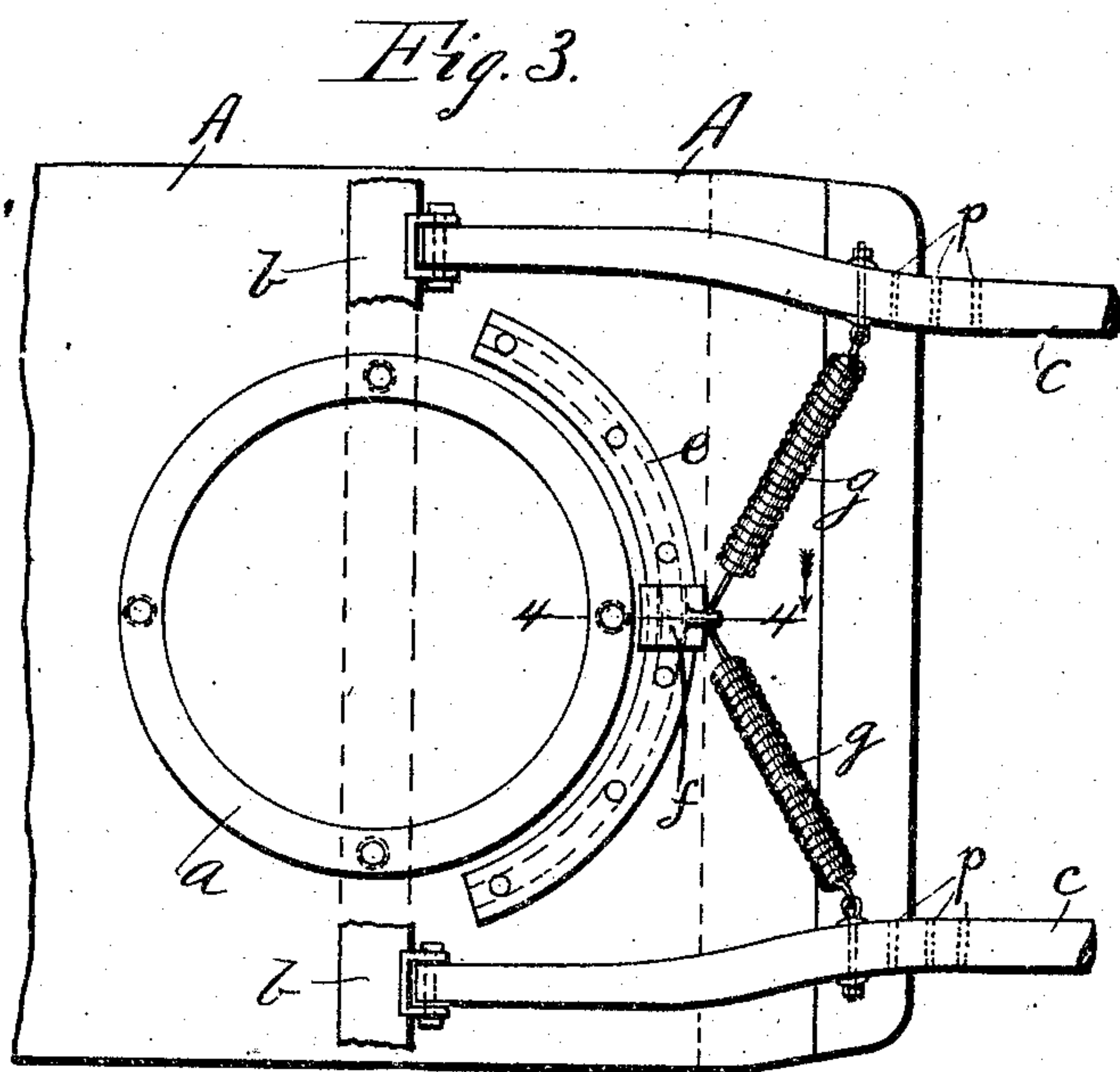
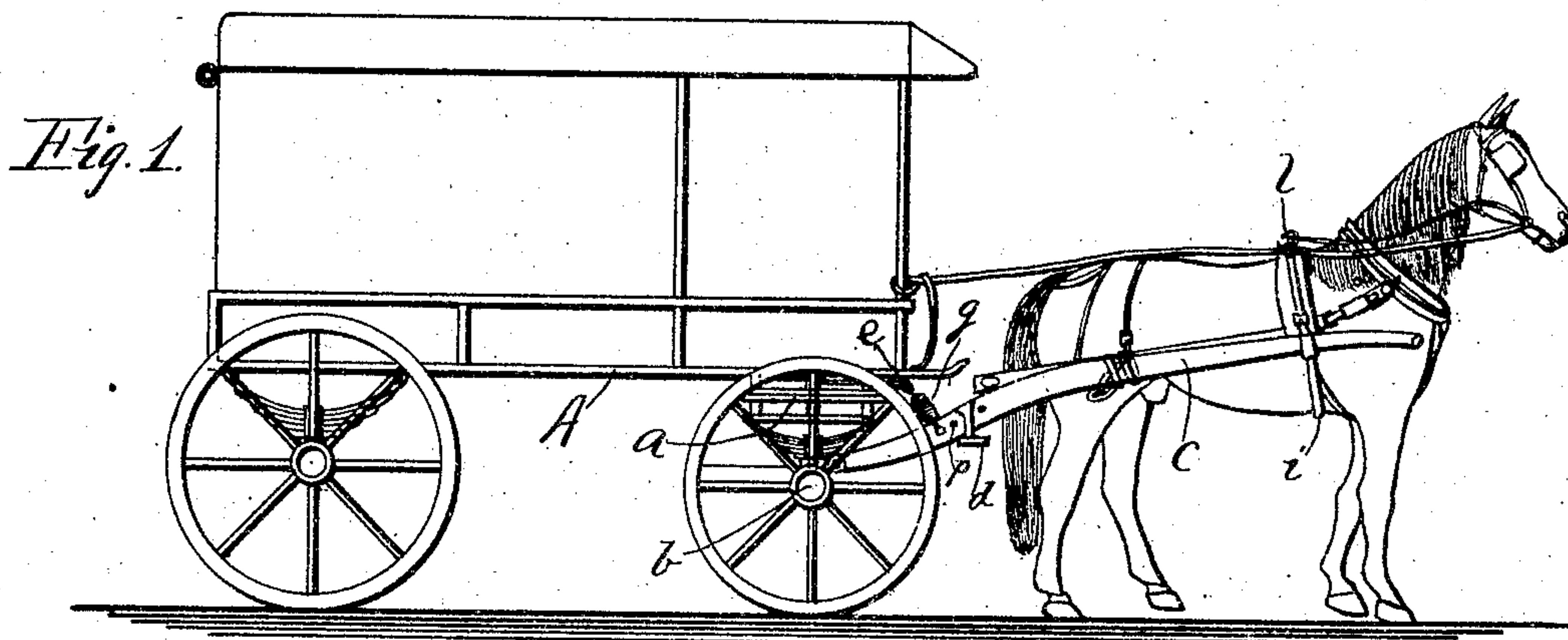


No. 785,340.

PATENTED MAR. 21, 1905.

F. E. WAHLGREN.
SHAFT SUPPORTER FOR WAGONS.
APPLICATION FILED MAY 23, 1904.



WITNESSES:

L. Almqvist
C. Sedgwick

INVENTOR

F. E. Wahlgren
BY
A. A. Hayer
ATTORNEY

UNITED STATES PATENT OFFICE.

FRITHIOF E. WAHLGREN, OF NEW YORK, N. Y.

SHAFT-SUPPORTER FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 785,340, dated March 21, 1905.

Application filed May 23, 1904. Serial No. 209,171.

To all whom it may concern:

Be it known that I, FRITHIOF E. WAHLGREN, a subject of the King of Sweden and Norway, and a resident of the borough of Brooklyn, New York city, State of New York, have invented certain new and useful Improvements in Shaft-Supporters for Wagons, of which the following is a specification.

The object of my invention is to support the shafts of delivery and other like wagons in a way to relieve the back of the horse from the galling effects of the thrusts of the saddle of the back-strap of the harness when the driver mounts and dismounts by the steps supported by the shafts; and it consists of the improved shaft-suspension attachment of the under side of the wagon-body hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a wagon and harness and a figure of a horse, showing the application of my invention. Fig. 3 is a plan view of part of the wagon inverted. Fig. 2 is a detail in side elevation enlarged. Fig. 4 is a detail in section on line 4 4 of Fig. 3.

A represents the bottom of the wagon-body, (inverted in Fig. 3.) *a* represents the "fifth-wheel;" *b*, the fore axle; *c*, the shafts hinged to the axle as usual; *l*, the saddle of the back-strap of the harness, from which the shafts are suspended, as usual, near the front ends, and *d* steps on the shafts for the use of the driver in mounting and dismounting.

It is well known that the frequent mounting and dismounting common in the service of such wagons has serious galling effect on the back of the horse by the thrusts of the saddle of the back-strap through the excessive stresses of sudden impact of the weight of the driver greatly increased by the power of the driver expended in springing onto the step, especially in mounting the wagon, and the need of relief therefrom is obvious. I therefore propose to effect such relief by the application to the under side of the body of a curved slideway *e* forward of the axis of the fifth-wheel or king-bolt, as the case may be, and on the radius thereof and apply thereon a sliding block *f*, capable of freely traversing said slide-
way either way from the center and apply strong coiled-wire springs *g*, both fastened to

said block at one end and each attached at the other end to the shafts, respectively, at a suitable distance forward of the slideway to have powerful resistance to such down thrusts on the shafts as would have galling effect on the back of the horse. Provision will be made for shifting the connections along the shafts in any approved way, as indicated by the additional bolt-holes *p* or otherwise to alter the tension of the springs *g*, and particularly to adjust the springs as to their lateral divergence from their connecting-point with the slide *f* for the best results in pulling the slide *f* along the slideway by the springs, respectively, as the shafts are turned one way or the other to insure a smoothly-working arrangement for the slide, which in its location is particularly liable to be clogged with dust and so obstructed as not to work at all on account of friction and binding, or at least to work very hard, especially when a single spring is used with a tongue and arranged in the line of the tongue.

The slideway *e* and the slide *f* may be constructed in any approved way. I have herein represented the slideway in inverted-T form fastened to the body through the stem of the T, so that the head constitutes flanges *j*, over which clips *k* of the slide *f* engage, as clearly shown in Fig. 4, to retain the slide on the slideway; but any other improved construction may be adopted.

What I claim as my invention is—

The combination with the wagon-body and the shafts, of the curved slideway attached to the under side of the body in advance of the axis of the fifth-wheel, and curved to the radius of said axis, slide-piece on said slideway, and two coiled-wire springs both fastened at one end to said slide-piece and attached at the other ends to the shafts respectively forward of the slideway and divergently as to each other and tangentially to the slideway whereby they respectively pull the slide freely and smoothly.

Signed at Brooklyn this 19th day of May, 1904.

FRITHIOF E. WAHLGREN.

Witnesses:

C. SEDGWICK,
J. M. HOWARD.