

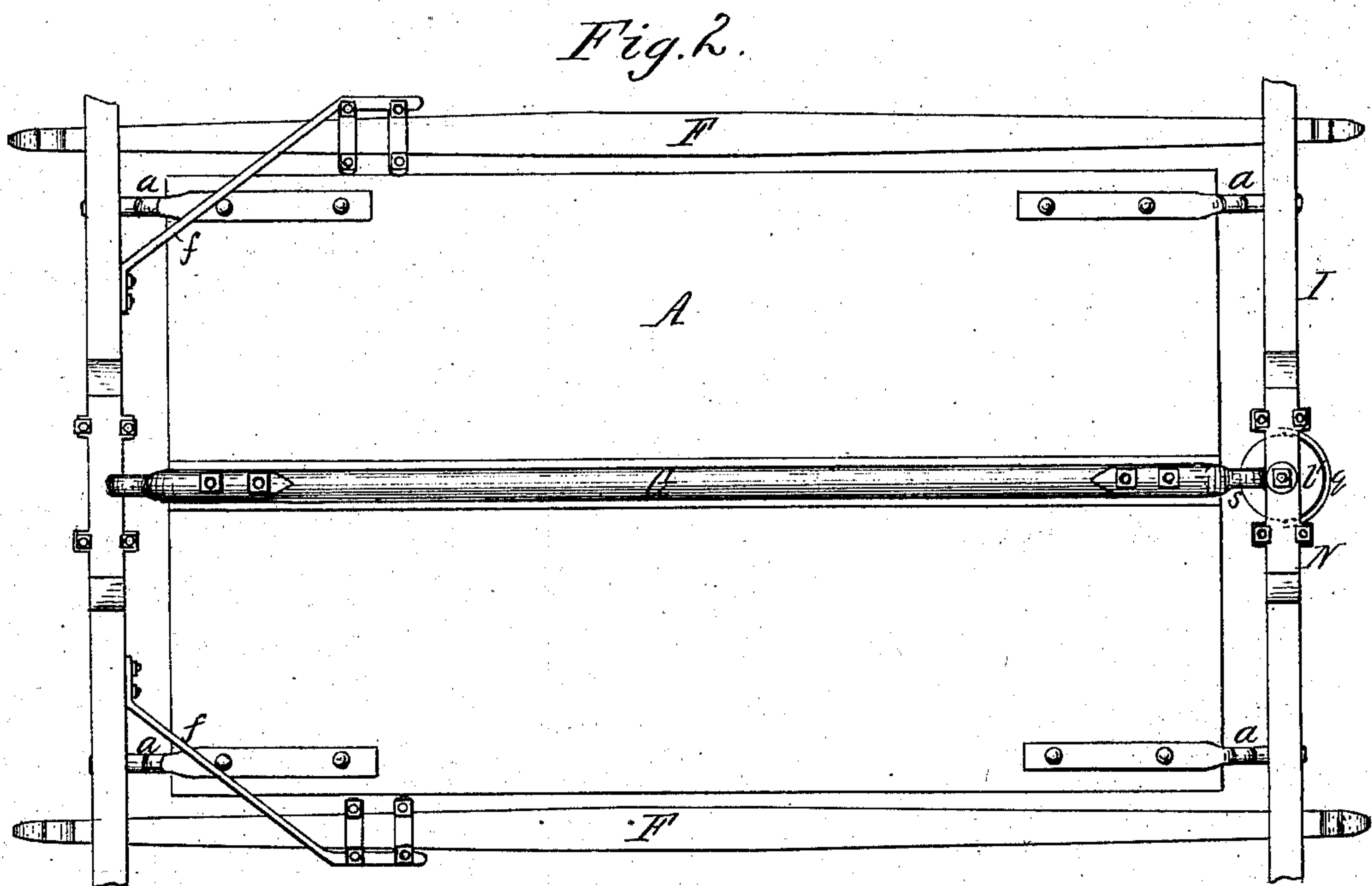
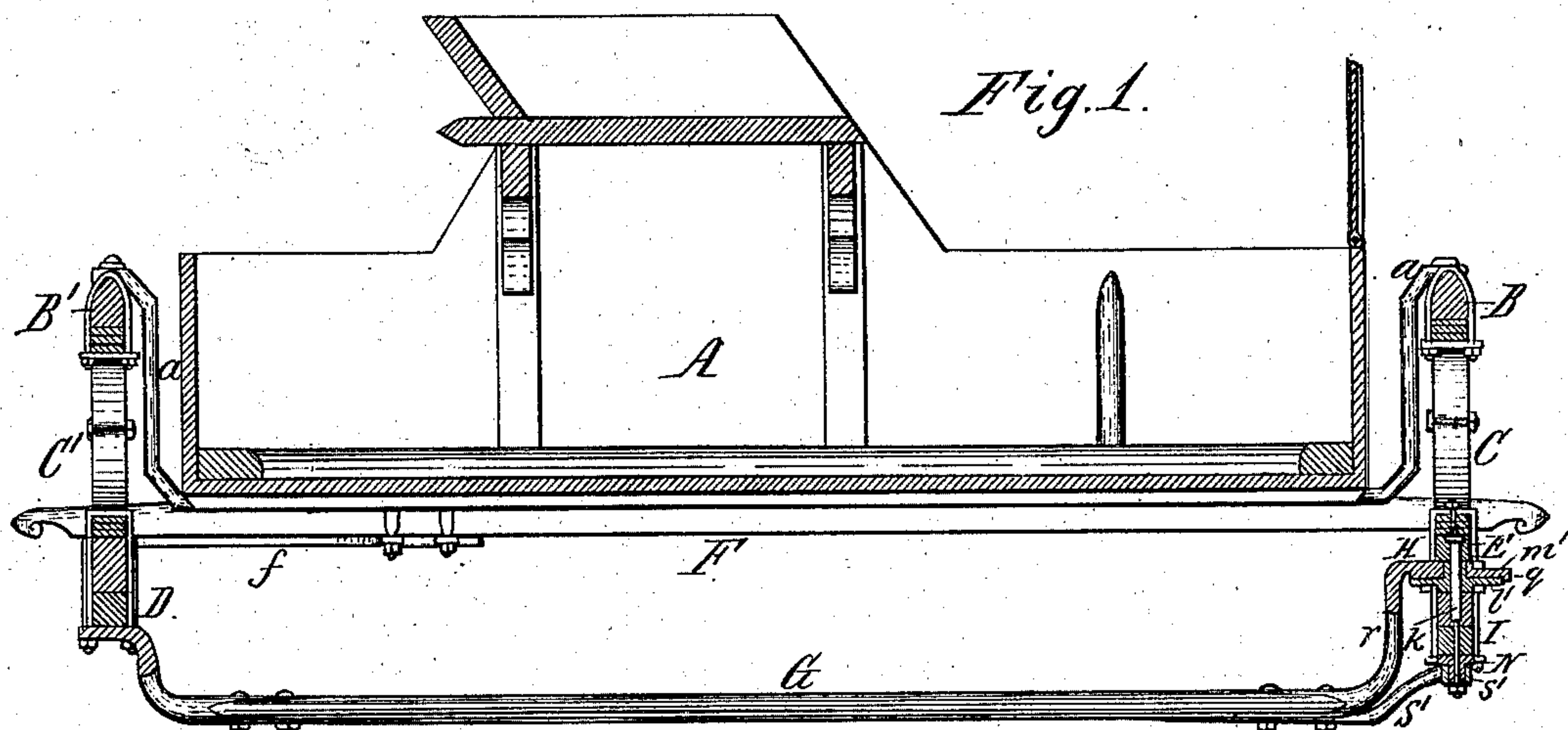
(No Model.)

2 Sheets—Sheet 1.

C. ROESSLER.  
Spring Wagon.

No. 237,326.

Patented Feb. 1, 1881.



Chas. J. Buchheit  
Edw. J. Brady. } Witnesses.

Inventor:  
Charles Roessler  
By Wilhelm & Bonnus  
Attorneys.

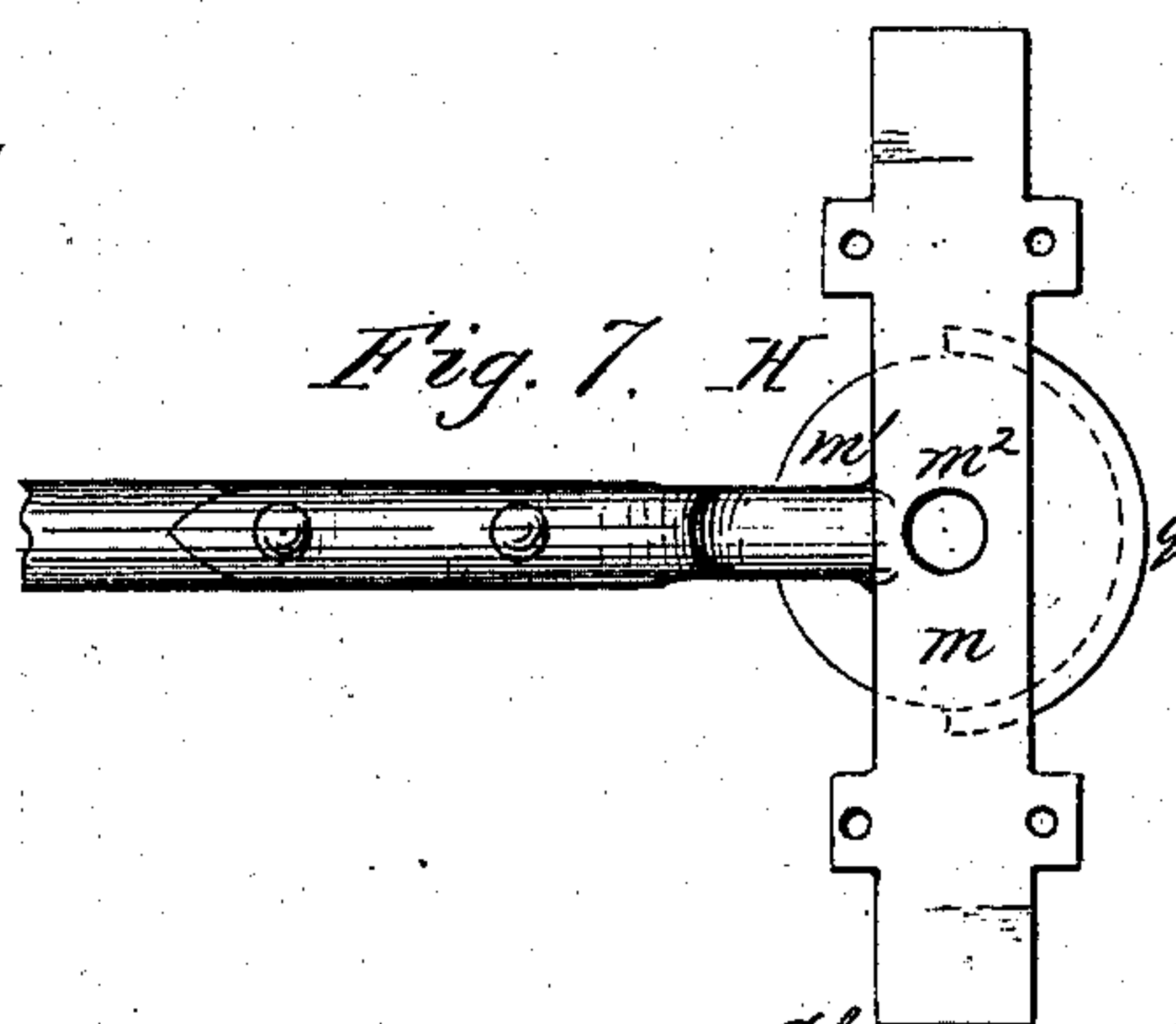
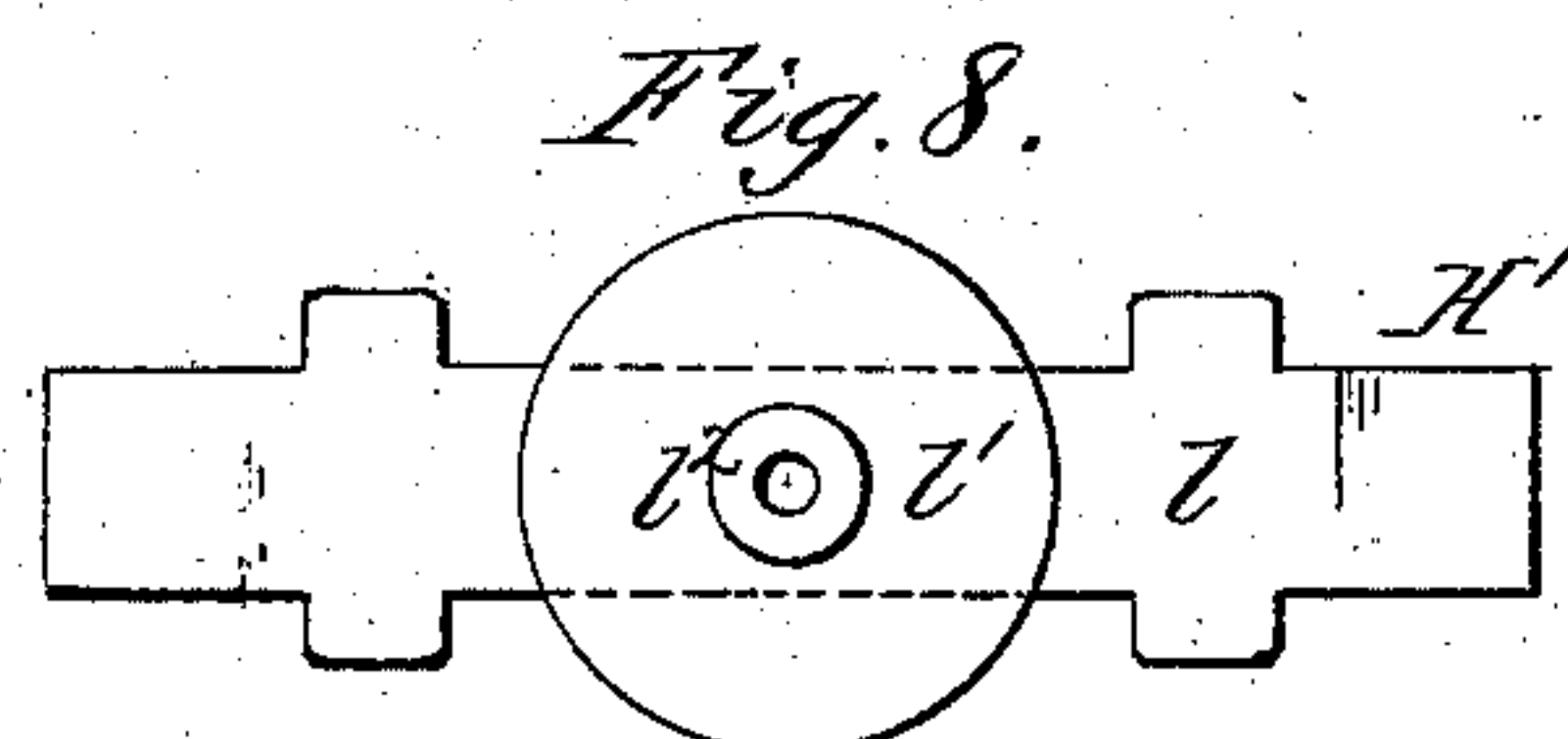
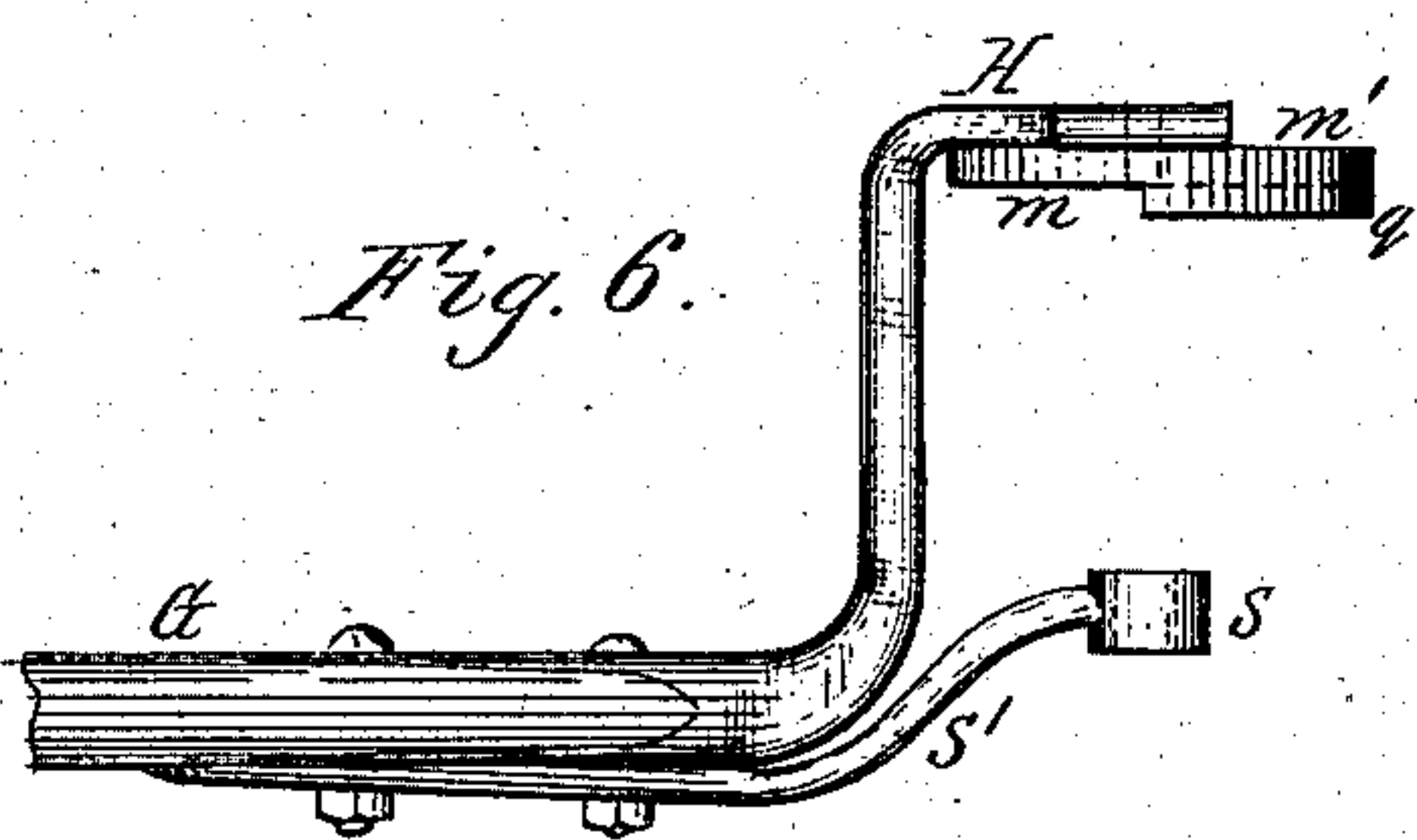
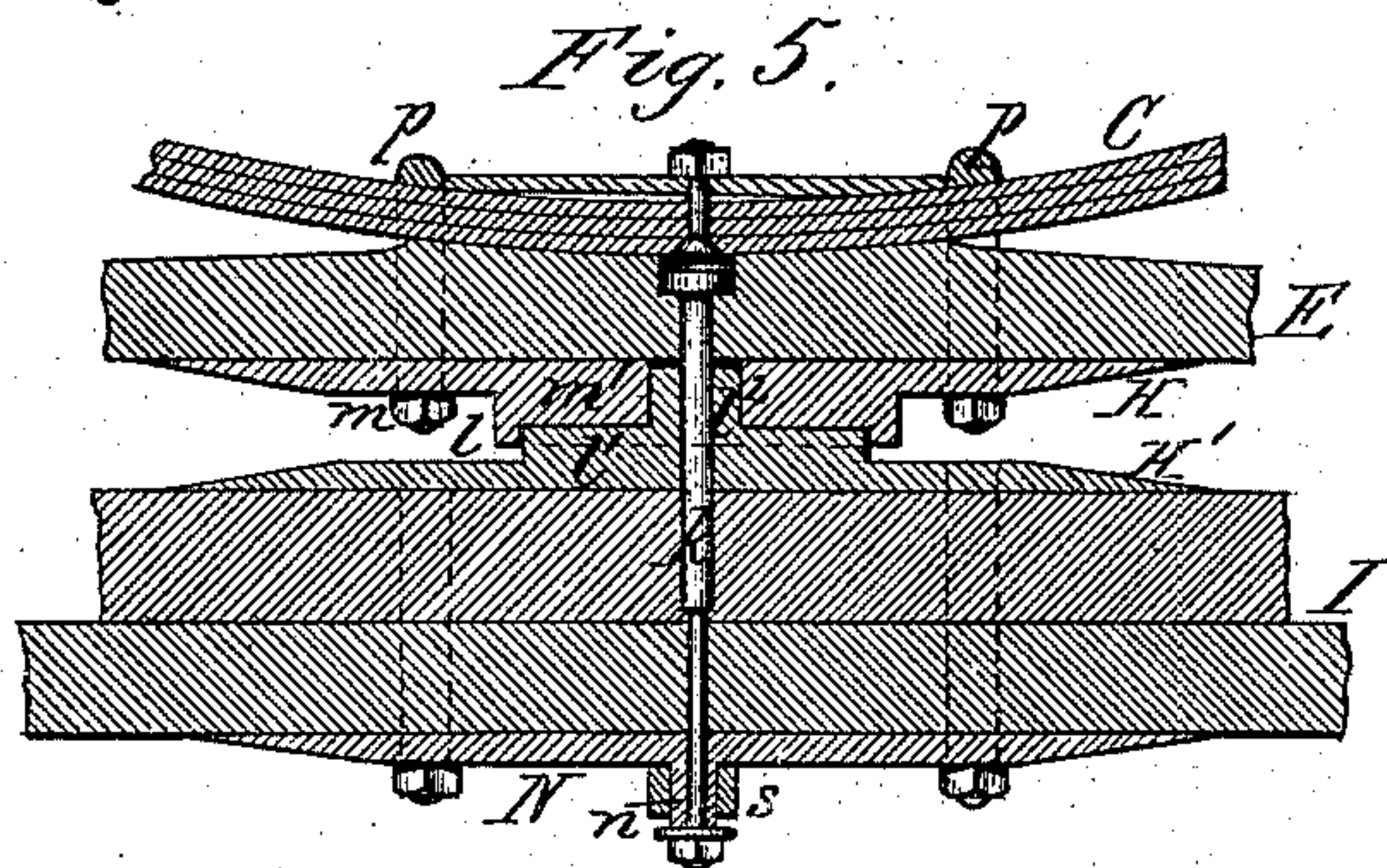
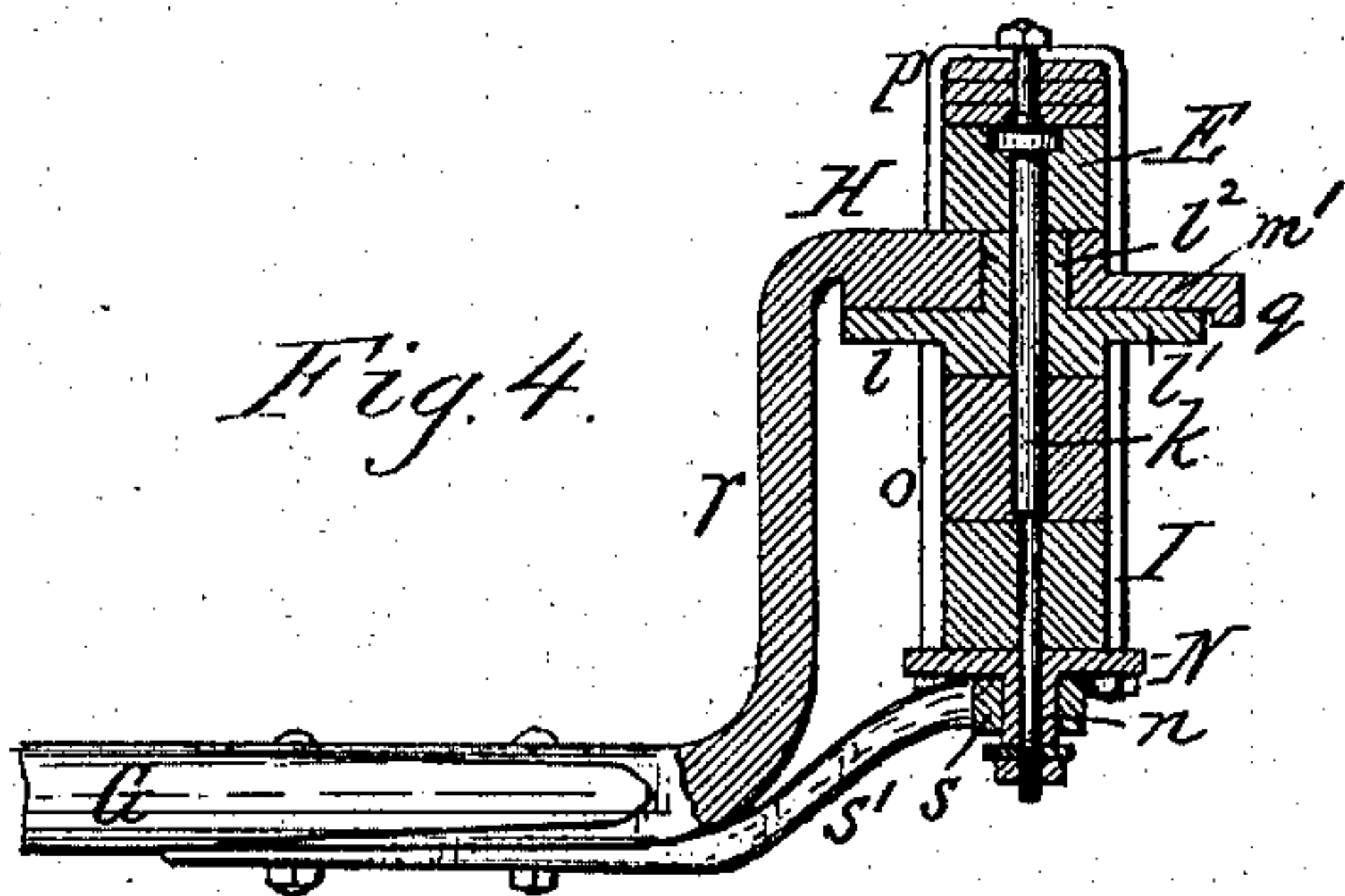
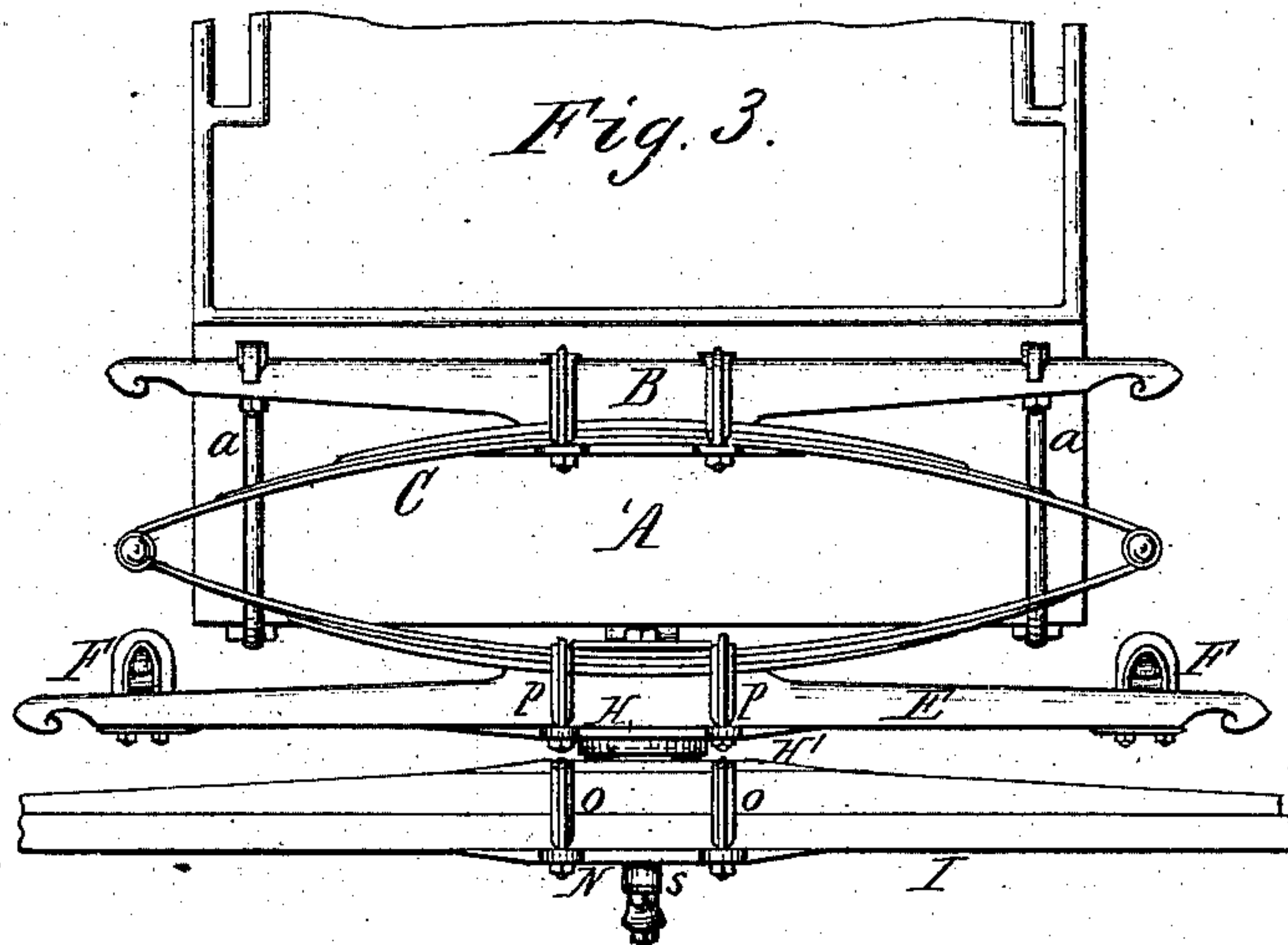
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2 Sheets—Sheet 2.

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Spring Wagon:

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By Wilhelm & Bonner  
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# UNITED STATES PATENT OFFICE.

CHARLES ROESSLER, OF BUFFALO, NEW YORK.

## SPRING-WAGON.

SPECIFICATION forming part of Letters Patent No. 237,326, dated February 1, 1881.

Application filed September 29, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ROESSLER, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Wagons, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to that class of wagons in which the body or box is supported upon two elliptical springs arranged transversely, one in front and one in rear of the body.

The object of this invention is to effect a more reliable connection of the front axle with the other parts of the wagon; and it consists of a fifth-wheel of peculiar construction, whereby the front axle is attached to the bolster and the king-bolt relieved from the strain, and in the manner in which the front axle is connected with the other parts of the wagon by means of the fifth-wheel, the reach, and the side-bars, as will be hereinafter fully set forth.

In the accompanying drawings, consisting of two sheets, Figure 1 is a longitudinal section of a buggy provided with my improvements. Fig. 2 is a bottom-plan view thereof. Fig. 3 is a front elevation thereof. Fig. 4 is a longitudinal section through the fifth-wheel. Fig. 5 is a transverse section of the same parts. Fig. 6 is a side elevation of the front end of the reach. Fig. 7 is a top-plan view thereof. Fig. 8 is a top-plan view of the lower half of the fifth-wheel.

Like letters of reference refer to like parts in the several figures.

A represents the body or box of the vehicle, supported by means of body-loops *a* upon the cross-pieces B B', secured respectively to the upper sides of the elliptical springs C C', arranged in front and in rear of the body A.

D represents the rear axle, to which the spring C' is secured, and E represents the bolster, to which the front spring, C, is secured.

F F are two side-bars, secured with their front ends to the bolster E and with their rear ends to the rear axle, D, and *ff* are angle-braces which connect the rear axle with the side-bars.

G represents the reach, which connects the bolster E with the rear axle, D, underneath the wagon-body A. The reach G is depressed to permit the body A to move freely up and down between the side-bars F.

H represents the upper half of the fifth-wheel, secured to the under side of the bolster E, and H' represents the lower half of the fifth-wheel, secured to the upper side of the front axle, I.

*k* represents the king-bolt; which connects the front axle, I, with the bolster E and passes centrally through the fifth-wheel.

The lower half, H', of the fifth-wheel consists of an oblong plate, *l*, which is provided with a raised central disk, *l'*, forming a bearing-surface for the upper half of the fifth-wheel, and a raised hub or perforated boss, *l<sup>2</sup>*, arranged centrally on the disk *l'*, and forming a bearing for the king-bolt. The upper half, H, of the fifth-wheel consists of an oblong plate, *m*, similar in form to the plate *l*, and a central disk, *m'*, formed on the lower side of the plate *m* and corresponding with the disk *l'* of the lower half. The disk *m'* is provided with a central opening, *m<sup>2</sup>*, in which the hub *l<sup>2</sup>* of the lower half snugly fits.

N represents an oblong plate, similar in form to the plates *l m* of the fifth-wheel, and secured to the lower side of the front axle, I. The plate N is provided with a downwardly-projecting hub, *n*, forming a bearing for the lower end of the king-bolt. The plates *l* and N are secured to the axle I by clips *o*, and the plate *m* is secured to the bolster E by clips *p*, which serve at the same time to secure the spring C to the upper side of the bolster.

The upper disk, *m'*, of the fifth-wheel is provided at its front with a semicircular flange, *q*, projecting over the front edge of the lower disk, *l'*, and which serves to exclude the dust from the contiguous surfaces of the two disks.

*r* is a bent shank formed centrally on the rear side of the upper half, H, of the fifth-wheel, and connecting the same with the front end of the reach G.

*s* is a bearing, which is secured by means of a shank, *s'*, to the front end of the reach, and which surrounds the hub *n* of the lower plate, N.

Each half of the fifth-wheel is preferably formed complete in one piece of wrought-iron by forging the same in a suitable die or mold. The hub *l<sup>2</sup>*, projecting from the lower half into the upper half of the fifth-wheel, and the hub *n*, projecting from the plate N into the bearing *s*, transmit the pull applied to the front axle,



I, directly to the reach and relieve the king-bolt of this strain, thereby permitting the use of a light king-bolt and reducing the liability to accidents by a fracture of the king-bolt.

- 5 The reach transmits a portion of the strain directly to the rear axle and relieves the side-bars, which, in turn, serve to relieve the reach of a portion of the strain. By this means a very strong and durable connection between  
 10 the front axle and the other parts of the wagon is produced, and at the same time the employment of light and neat looking parts is rendered possible with perfect safety.

I claim as my invention—

- 15 1. The combination, with the bolster E, front axle, I, and reach G, provided with arms  $r s'$ , of a fifth-wheel composed of a lower plate,  $l$ , secured to the axle, and provided with a disk,  $l'$ , and hub  $l^2$ , an upper plate,  $m$ , formed in one  
 20 piece with the upper arm,  $r$ , of the reach and secured to the bolster, a disk,  $m'$ , formed in one piece with the plate  $m$ , and having a central

opening,  $m^2$ , for the hub  $l^2$ , a plate, N, secured to the under side of the axle, and provided with a hub,  $n$ , which fits in a bearing,  $s$ , at the end 25 of the lower arm,  $s'$ , of the reach, and a king-bolt,  $k$ , as shown and described.

2. The combination, with the body A, of the transverse elliptic springs C C', cross-pieces B B', secured to the upper sides thereof, and body- 30 loops  $a$ , supporting the body A on the cross-pieces B B', bolsters E, side-bars F, connecting the bolster with the rear axle, D, and a reach, G, secured with its rear end to the rear axle and having a bifurcated front end,  $r s'$ , the 35 upper arm,  $r$ , of which connects with the upper half of the fifth-wheel, and the lower arm,  $s'$ , with the plate on the under side of the axle, substantially as set forth.

CHAS. ROESSLER.

Witnesses:

EDWARD WILHELM,  
 JNO. J. BONNER.