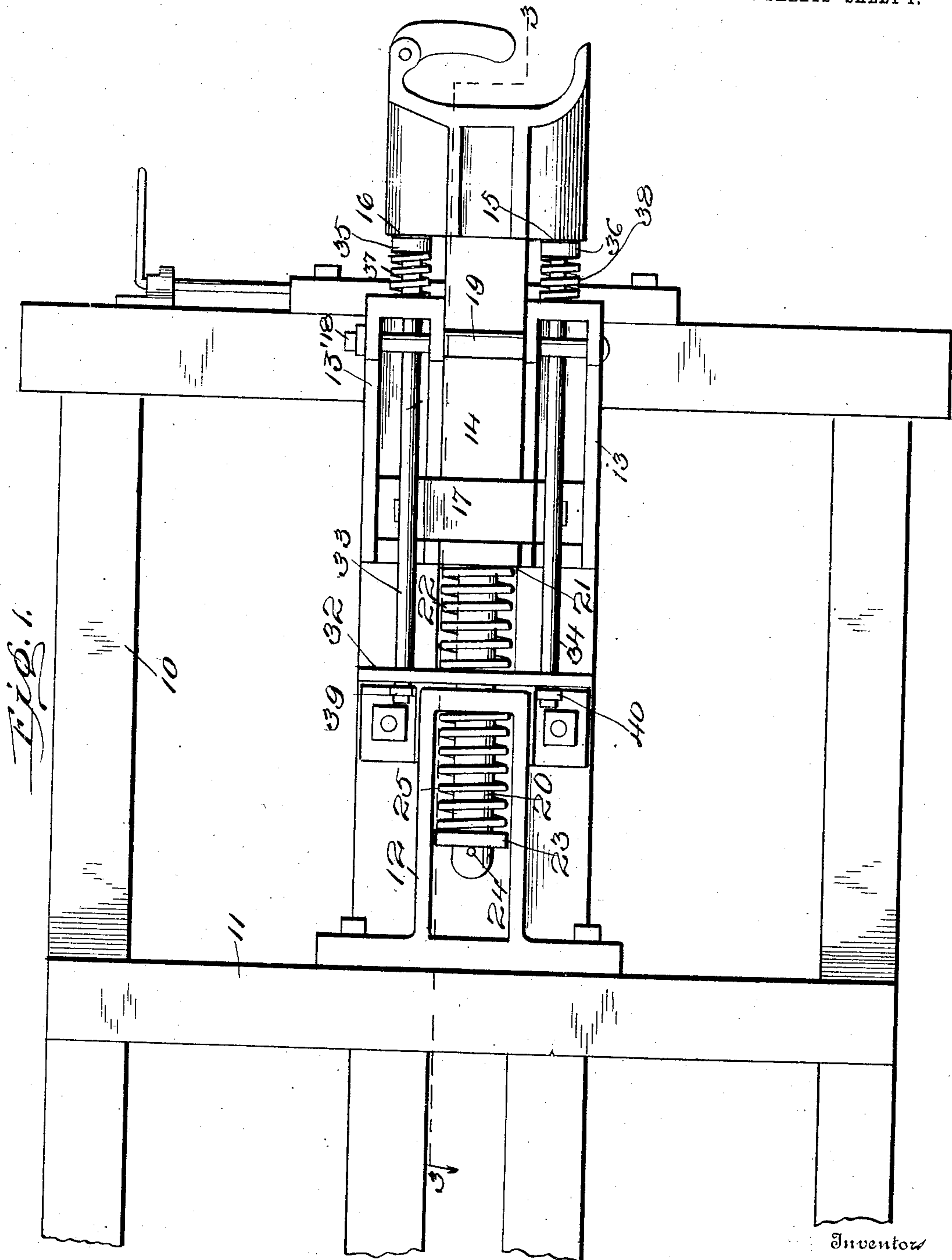


No. 837,800.

PATENTED DEC. 4, 1906.

T. E. & W. L. COX.
DRAFT APPLIANCE.
APPLICATION FILED MAR. 19, 1906.

3 SHEETS—SHEET 1.



Inventor

Witnesses

J. M. Fowler Jr.
L. Merrill.

By

Thomas E. Cox
William L. Cox
Fred T. Brall

Attorney

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3 SHEETS—SHEET 2.

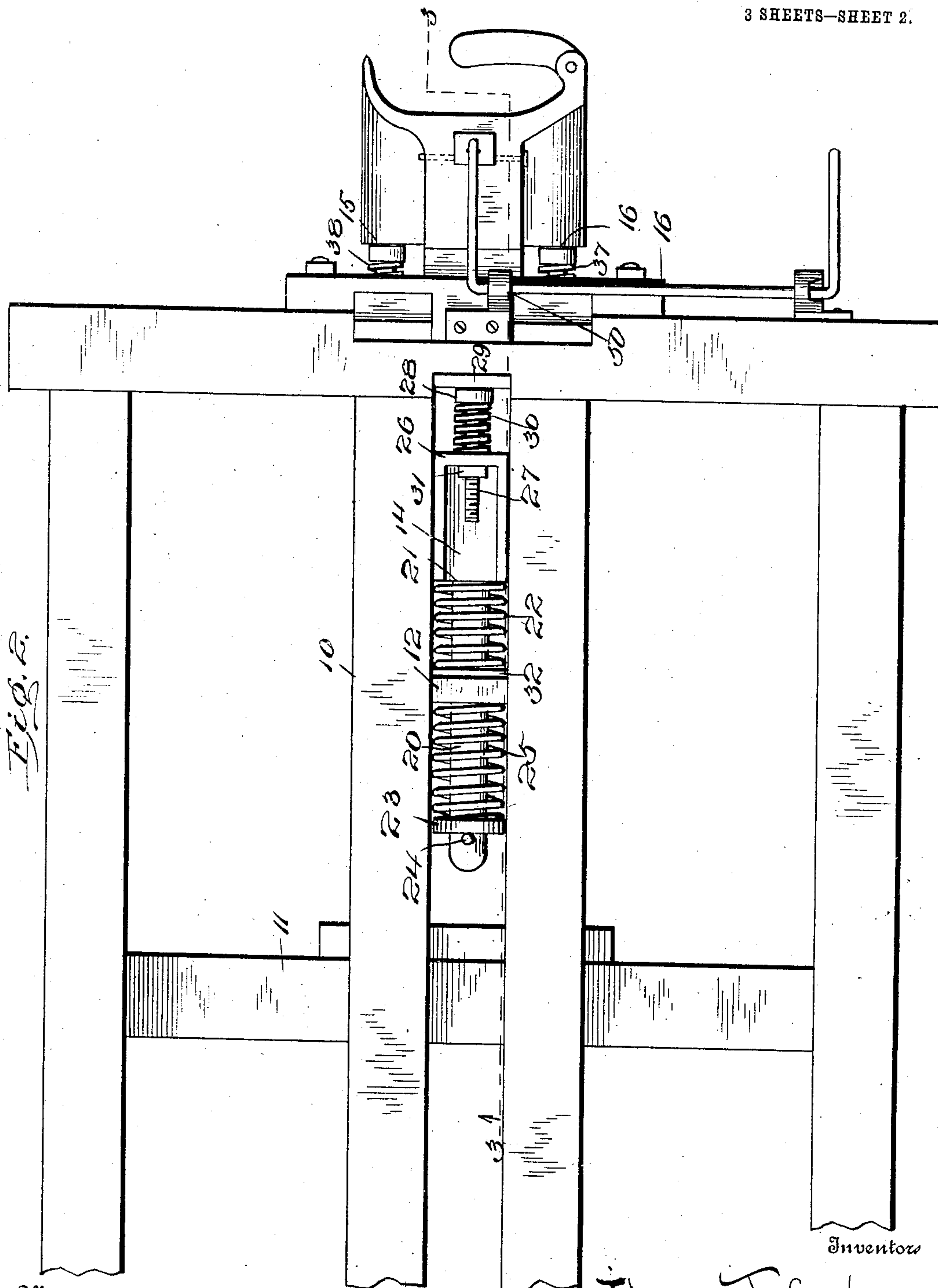


Fig. 2.

Witnesses

J. M. Fowler Jr.
L. Merrill.

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Thomas E. Cox
William L. Cox
Fred Brall

Inventors

Attorney

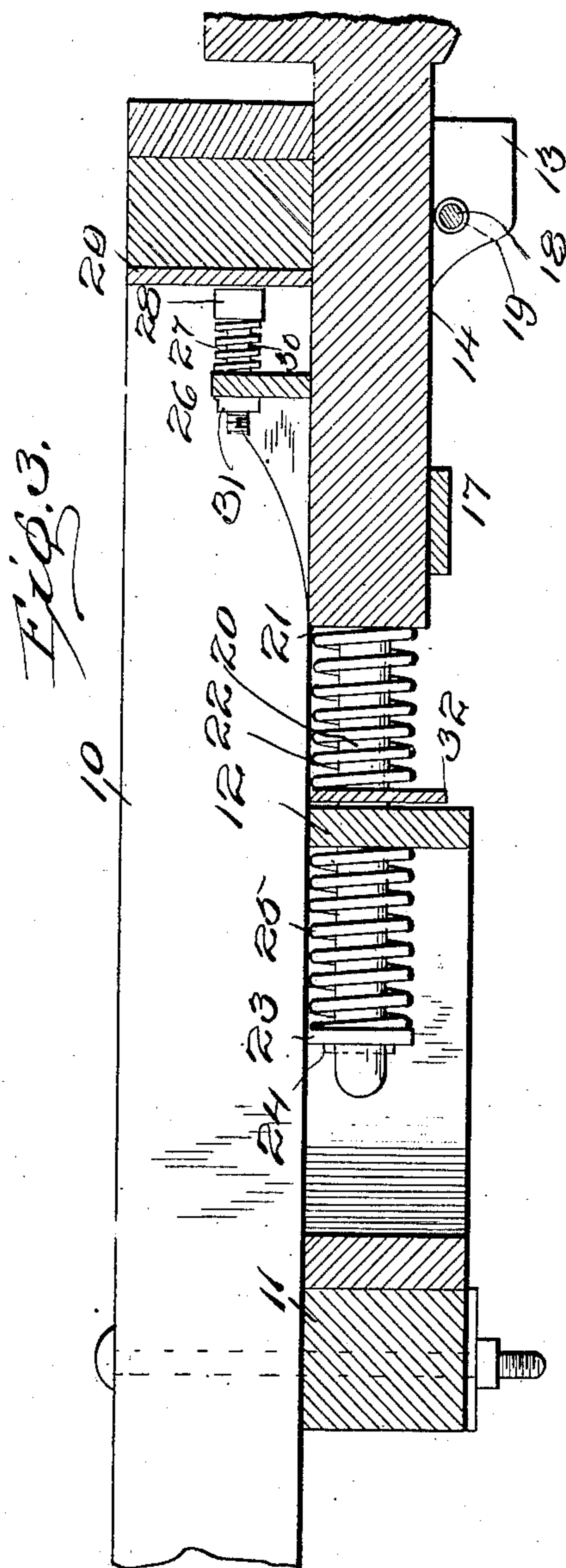
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3 SHEETS—SHEET 3.



Witnesses
J. M. Fowler Jr.
L. Merrill

Inventors
Thomas E. Cox.
and William L. Cox.
By *Fred Beall*
Attorney

UNITED STATES PATENT OFFICE.

THOMAS ENOCH COX AND WILLIAM LENOX COX, OF BIRMINGHAM,
ALABAMA.

DRAFT APPLIANCE.

No. 837,800.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed March 19, 1906. Serial No. 306,900.

To all whom it may concern:

Be it known that we, THOMAS ENOCH COX and WILLIAM LENOX COX, citizens of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Draft Appliances, of which the following is a specification.

Our invention relates to draw-bars and draw-heads, and has for its object to provide a draw-bar embodying new and improved means for attachment to the frame of a car and new and improved means for taking up the movement of the draw-bar under stress of draft or buffing.

A further object of the invention is to provide a draw-bar embodying new and improved features of convenience, strength, safety, and efficiency.

With these and other objects in view the invention comprises certain other novel constructions and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings, Figure 1 is an inverted plan view of the improved coupler. Fig. 2 is a top plan view of the coupler with the car-floor removed. Fig. 3 is a longitudinal sectional view of the coupler, taken on line 3 3 of Figs. 1 and 2.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment the improved draw-bar forming the subject-matter of this application is mounted beneath the usual and ordinary sills, as 10, of a car by securing transversely of the side sills the cross-bar 11, to the forward side of which is rigidly secured a guide member 12. Adjacent the end of the car to which the draw-head is applied are mounted brackets 13 and 13', spaced apart sufficiently to permit the draw-bar 14 to move longitudinally therebetween, the said draw-bar extending beyond the end of the car and provided with a draw-head having shoulders 15 and 16 extending laterally therefrom. Upon the brackets 13 and 13' adjacent their rearward ends is secured a stirrup 17, proportioned to embrace the draw-bar 14 and to support it between the said brackets. The brackets 13 and 13' are secured together at their forward ends by means of a rod 18 extending therethrough transversely of the car and provided be-

tween the said brackets with a sleeve or roller 19, upon which the draw-bar rests and is movable.

The draw-bar 14 at the point where it extends through the guide 12 is reduced in size and is preferably formed circular in cross-section, as at 20, defining a shoulder 21, between which and the guide 12 is disposed a coil-spring 22. Adjacent the ends of the bar 20 and within the guide 12 is disposed a washer 23 in any approved manner, as by a pin 24, and between the said washer and the guide 12 is disposed a spring 25.

Upon the upper surface of the draw-bar 14 is formed or secured a lug or bracket 26, rigid with the bar, having therein mounted a bolt 27, provided at its forward end with a head 28, disposed to contact with a plate 29, rigidly secured to the beam of the car, and between the said plate 29 and the lug 26 is disposed a spring 30, embracing the bolt 27, which is held from displacement within the lug 26 in any approved manner, as by a nut 31.

Between the guide 12 and the spring 22 is arranged a plate 32, extending laterally upon each side of and embracing the portion 20 of the draw-bar and to the ends of which are secured bars 33 and 34, extending forwardly, respectively, through the brackets 13 and 13' and provided at their forward ends, respectively, with heads 35 and 36 normally in contact with the shoulders 15 and 16 and with spring 37 and 38 between the said heads and their associated brackets. The bars 33 and 34 are longitudinally movable through the plate 32 and the forward movements thereof are limited by means of nuts 39 and 40 upon the said bars and rearward of the said plate.

What we claim is—

1. In a draft appliance, brackets mounted upon the sills of the car and spaced apart, a cross-piece extending transversely of the car, a guide carried rigidly upon the cross-piece, a draw-bar disposed between the brackets and extending through and to move longitudinally in the guide and provided with a shoulder forwardly of the guide and with a collar rearwardly of the guide, springs interposed between the shoulder and guide and between the collar and guide, and a roller disposed between the brackets and positioned to support the bar.

2. In a draft appliance, spaced brackets

secured to the beam of the car, a cross-piece rigidly secured to the beam of the car rearwardly of the brackets, a guide rigidly secured to the cross-piece between the said cross-piece and brackets, a draw-bar disposed between the brackets and extending through the guide and provided with a shoulder, a buffer-spring disposed between the guide and the shoulder, a collar secured upon the rearward end of the draw-bar, a draw-spring disposed between the collar and the guide, a bracket rigidly upstanding from the draw-bar and spaced from the sill of the car, and a draw-spring disposed between the bracket and the sill.

3. In a draft appliance, a bracket secured to the sill of the car and spaced apart, a cross-piece secured to the sill of the car and extending transversely thereof, a guide rigidly secured to and extending forwardly of the cross-piece and between the said cross-piece and the brackets, a draw-bar disposed between the brackets and extending through the guide and provided with a shoulder, a roller disposed between the brackets and ar-

ranged to support the draw-bar, a buffer-spring interposed between the shoulder of the draw-bar and the guide, a collar secured upon the rearward end of the draw-bar, a draw-spring interposed between the collar and the guide, buffer-rods extending through the brackets and terminating in buffer-heads disposed forwardly of the brackets and in position for contact by the draw-head, buffer-springs disposed between the buffer-heads and the brackets, a bracket rigidly upstanding from the draw-bar and spaced from the sill of the car, a rod mounted to reciprocate in the said bracket and provided with a buffer-head upon its forward end positioned to contact with the sill, and a spring interposed between the buffer-head and the bracket.

In testimony whereof we affix our signatures in presence of two witnesses.

THOMAS ENOCH COX.
WILLIAM LENOX COX.

Witnesses:

WILLIAM WEBB COX,
H. B. URQUHART.