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Patented Apr. 9, 1901.

J. ELDER.

DRAFT RIGGING FOR LOCOMOTIVES.

(Application filed May 26, 1898.)

(No Model.)

2 Sheets—Sheet 1.

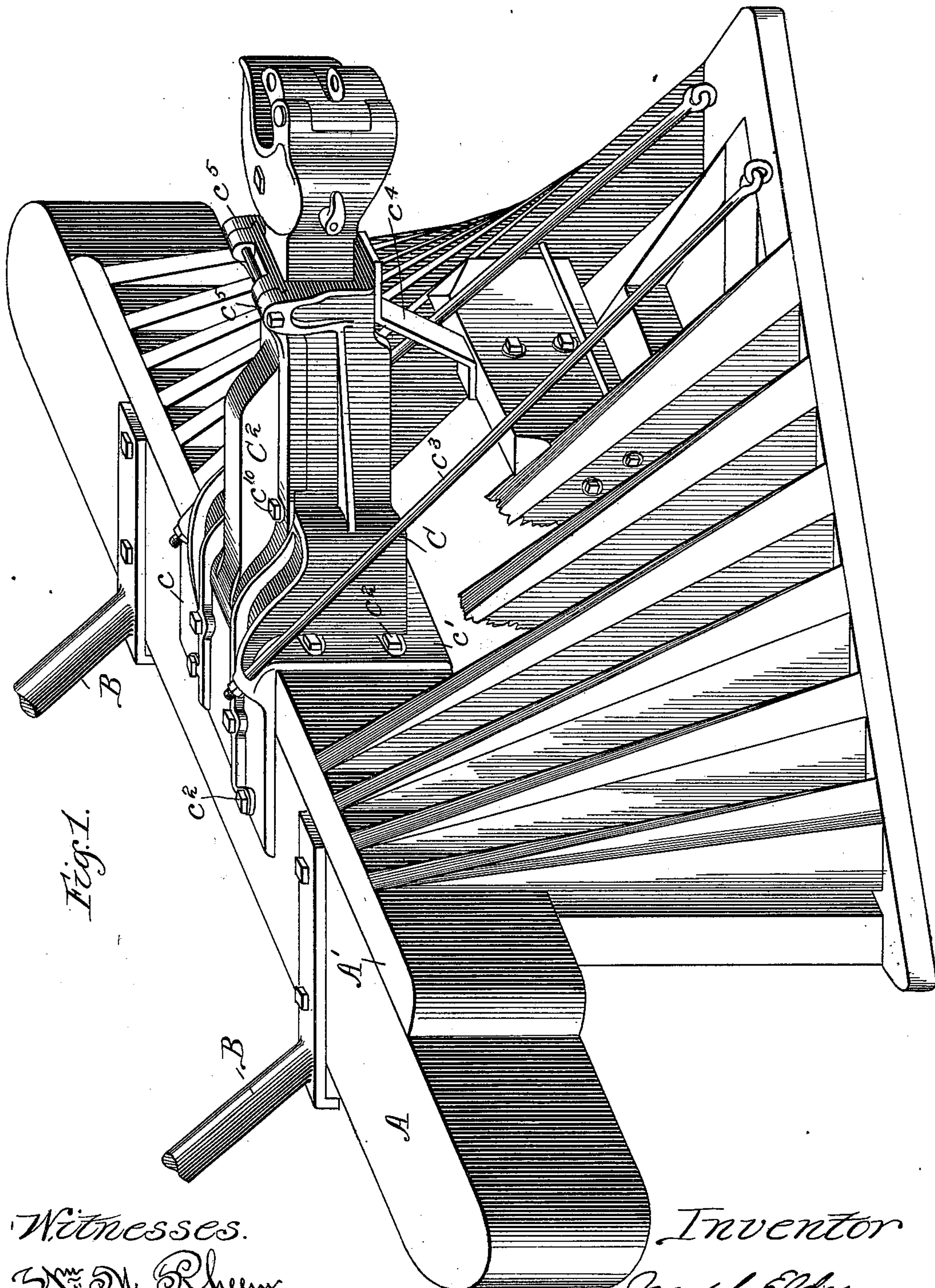


Fig. 1.

Witnesses.

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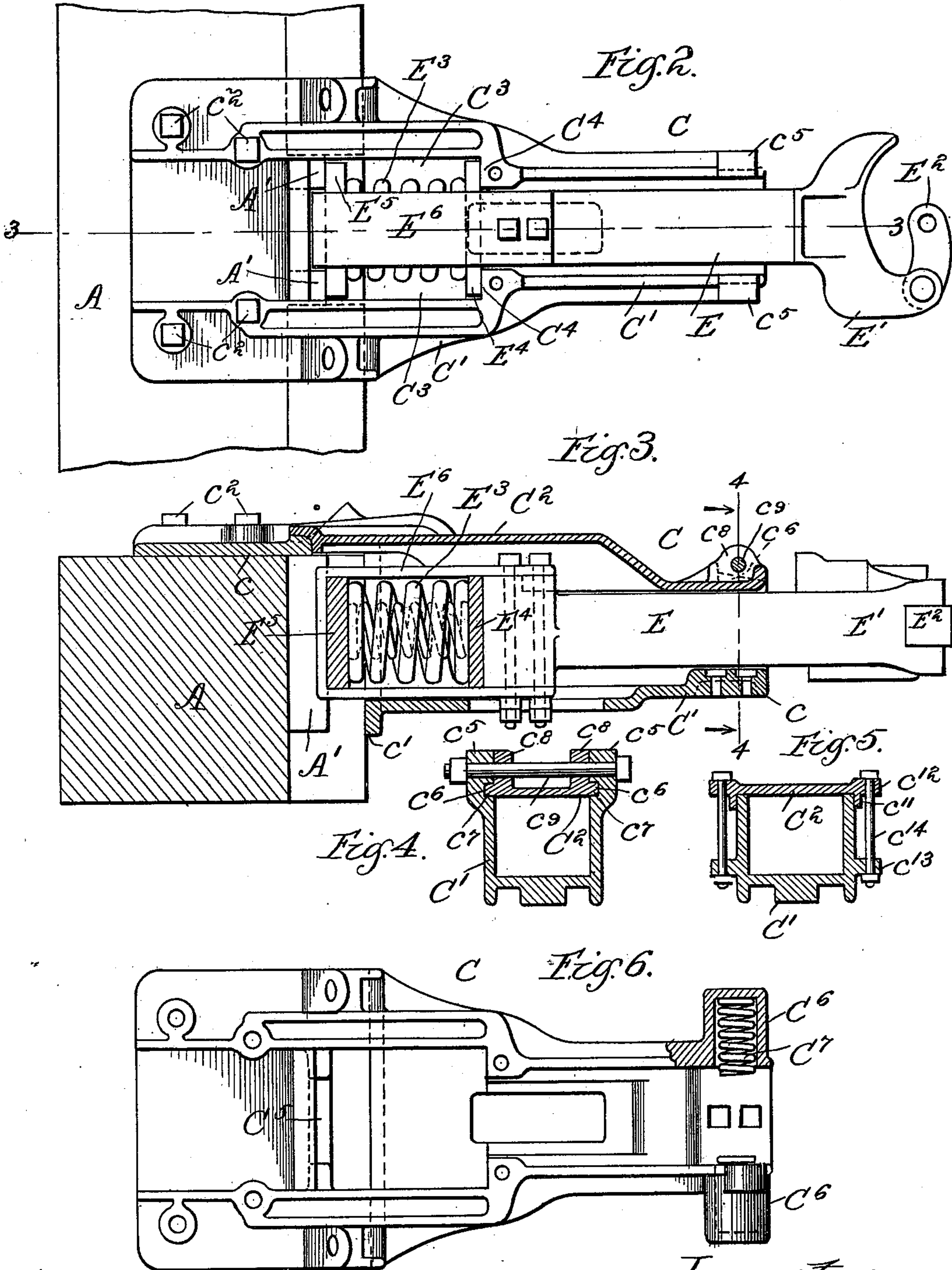
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(Application filed May 26, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## DRAFT-RIGGING FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 671,939, dated April 9, 1901.

Application filed May 26, 1898. Serial No. 681,794. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH ELDER, a citizen of the United States, residing at Peoria, county of Peoria, State of Illinois, have invented a certain new and useful Improvement in Draft-Rigging for Locomotives; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Heretofore it has been customary where the head ends of locomotives are provided with couplers to provide the head-block or pilot thereof with a car-coupler the shank of which was engaged directly to the head-block of the locomotive or in some cases to provide the head-block with a draft-rigging or holder requiring a special form of coupler-shank. In other words, while it has sometimes been customary to attach to the pilot a holder or draft-rigging to which the shank of the coupler is engaged, yet the shank and holder have been so constructed that a special form of coupler-shank had to be used. The difficulty with this has been that if the coupler or its shank became broken a new coupler of that particular form must be provided, often at the expense of much time and trouble.

My invention has for its object the provision of a holder or draft-rigging which is engaged to the head-block of the locomotive and is of such construction that it will receive and hold the standard shank and follower-plates of the standard Master Car-Builders' coupler, so that if at any time the coupler or its shank becomes broken any standard Master Car-Builders' coupler, no matter of what style, can be substituted.

The invention consists in the combination of devices and appliances hereinafter described and claimed.

In the drawings, Figure 1 is the perspective view of a locomotive head-block and pilot with my holder or draft-rigging and its coupler attached thereto. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section on the line 3 3 of Fig. 2. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a sectional

view illustrating a variation. Fig. 6 is a plan view illustrating another variation.

In carrying out the invention, A represents the head-block of a locomotive, and B the usual braces thereof.

C is what I will term the coupler "holder" or "draft-rigging." It is made up of two parts, a main shell C' and a cover C<sup>2</sup>, the latter being shown in Figs. 1, 3, 4 and 5. The shell C' is so shaped at one end as to rest at c on the top of the head-block and at c' against the front face of the head-block, being secured to the head-block by the bolts c<sup>2</sup>. Brace-rods c<sup>3</sup> also further secure the holder to the pilot. If desired, the outer end of the holder may be supported by arm c<sup>4</sup>. It is of course immaterial as to the particular means adopted for securing the holder to the head-block. The shell of the holder adjacent to the head-block is so shaped that lateral recesses C<sup>3</sup>, Fig. 2, are provided, and shoulders C<sup>4</sup> are also provided. The shell is of course hollow and is provided with a cover C<sup>2</sup>. This cover may be engaged to the shell proper in any suitable way. I prefer to provide on the outer end of the holder the lugs c<sup>5</sup>, having in their opposing faces recesses c<sup>6</sup>, (shown in Fig. 4,) and to provide on the end of the cover the projections c<sup>7</sup>, Fig. 4, adapted to enter the recesses c<sup>6</sup>, and also the lugs c<sup>8</sup>. A bolt c<sup>9</sup>, passed through the lugs c<sup>5</sup> c<sup>8</sup>, secures the parts together. The rear end of the cover may be held to the shell by the bolts c<sup>10</sup> or in any other suitable way. If desired, the cover may be held to the shell by the arrangement of parts shown in Fig. 5. In this figure the cover is provided with depending flanges c<sup>11</sup>, which engage the sides of the shell C', and with lugs c<sup>12</sup>. The shell is also provided with lugs c<sup>13</sup>, and bolts c<sup>14</sup>, passed through the lugs c<sup>12</sup> c<sup>13</sup>, secure the parts together.

As is well known to those skilled in the art, the standard Master Car-Builders' coupler has shank E, a coupler-head E', and a knuckle E<sup>2</sup>. The shank E is also provided with a buffer spring or springs E<sup>3</sup>, with follower-plates E<sup>4</sup> E<sup>5</sup>, and with a strap E<sup>6</sup> for holding the parts together. It will now be seen that by the above construction I have provided a



holder or draft-rigging of such shape and arrangement that by the removal of the cover C<sup>2</sup> the shank of a standard Master Car-Builders' coupler can be readily dropped into the holder, the follower-plate E<sup>4</sup> abutting against the shoulders C<sup>4</sup>, while the follower-plate E<sup>5</sup> abuts against the timber A' on the head-block. Should the coupler or shank at any time become broken, all that is necessary is to remove the cover of the holder, remove the shank, and replace with another one, no matter what the make of coupler. In addition to the advantage of being able to substitute any make of coupler in the holder there is the advantage of using a Master Car-Builders' coupler, in which there is the follower-plates and buffer-springs. In other words, so far as I am aware, my construction is the first wherein the provision is made to supply the coupler of the head end of a locomotive with buffer-springs.

In Fig. 6 I have shown another variation. In this structure the shell is provided with a back plate C<sup>5</sup> for the pocket which receives the follower-plates, so that the follower-plate E<sup>5</sup> instead of abutting against the timber A' abuts against the plate C<sup>5</sup> of the shell C'. In this structure (shown in Fig. 6) I have also provided pockets C<sup>6</sup>, in which may be placed lateral buffing-springs C<sup>7</sup>, if desired, to cushion the shank laterally.

As will be seen from the above description, two material advantages are obtained by the use of my holder. First, it permits the use of any Master Car-Builders' coupler on a locomotive, so that in case the coupler is broken it is not necessary to have a special coupler made or to send to the shops for a special coupler; but any Master Car-Builders' coupler may be substituted, even, if necessary, taking one from a car; second, it permits the use of a coupler having buffer-springs, so that the same advantage is gained by the use of those springs for the head ends of locomotives that has heretofore been gained by the use of them on the cars.

It is of course obvious that the size and shape of the pocket formed in this case by the shell, which is located upon the head-block of the locomotive, may be varied as desired without departing from the spirit of the invention. It is also obvious that instead of the removable portion of the shell—that is to say, the cover—being on the top it may be any one of the four sides of the shell, or in case the shell in cross-section is changed it may be any one of the sides. It is also obvious that if desired any form of operating-lever may be placed on the structure for the purpose of operating the lock of the coupler—that is to say, for the purpose of locking or unlocking the coupler—without departing from the spirit of the invention.

What I claim is—

1. The combination with a locomotive head-block of a holder or draft-rigging for the shank of a car-coupler provided with a pocket

adapted to receive the follower-plates of a coupler-shank, said pocket having an open rear end and abutting shoulders on the forward end and means for holding said follower-plates in said holder, substantially as described.

2. The combination with a locomotive head-block of a holder or draft-rigging comprising a shell having an open rear end adapted for engagement with the head-block and provided with shoulders intermediate of the ends for engaging the front follower-plate of the coupler-shank and with a recess to receive the shank and provided also with means for holding the shank and follower-plate in the shell, said head-block adapted to receive the rear follower-plate, substantially as described.

3. The combination with a locomotive head-block of a holder or draft-rigging comprising a shell having an open rear end adapted for engagement thereon and provided with shoulders intermediate of its ends for engaging the front follower-plate of a coupler-shank and having a recess to receive the shank, a removable cover adapted to permit the coupler-shank to be placed laterally in the shell and means for securing said cover to said shell.

4. The combination with a locomotive head-block of a holder or draft-rigging comprising a shell having an open rear end adapted for engagement with said head-block, shoulders intermediate of the ends of said shell for engaging the front follower-plate of a coupler-shank said shell having a recess to receive the shank and a removable cover adapted to hold the shank and follower-plate in position, substantially as described.

5. The combination with a locomotive head-block of a shell engaged thereto, said shell provided with a recess to receive the coupler-shank, shoulders in said shell against which the front follower-plate of the shank can bear, a plate on the head-block against which the back follower-plate can bear and a cover acting to close said shell.

6. The combination with a locomotive head-block of a coupler-holder or draft-rigging comprising a shell adapted for engagement with said head-block and having an open rear end and a recess to receive the coupler-shank, shoulders in said shell against which the front follower-plate of the coupler-shank can bear and a cover, said cover engaged to said shell at its forward end by bolts passed through lugs in both the cover and the shell and at its rear end by bolts passed through the cover and the shell, substantially as described.

7. The combination with a locomotive head-block of a coupler-holder comprising a shell having an open rear end adapted for engagement thereon and provided with a recess to receive the coupler-shank, shoulders in the shell against which the front follower-plate of the coupler-shank can bear, said shell also provided with pockets to receive the lateral buffer-springs substantially as described.



8. The combination with a locomotive head-  
block of a shell having an open rear end en-  
gaged thereto, a coupler-shank located in said  
shell, said shank provided with follower-  
plates on its rear end, shoulders against which  
said follower-plates bear, and a cover for  
holding the parts in place and adapted when  
removed to permit the removal of the shank  
and the follower-plates. 15
9. The combination with a locomotive head-  
block of a shell engaged thereto having an  
open rear end and a coupler-shank located in  
said shell, said shank provided with follower-  
plates on its rearend, shoulders against which  
said follower-plates bear, a cover for holding  
the parts in place and adapted when removed  
to permit the removal of the shank and fol-  
lower-plates, and springs carried by said shell  
and adapted to bear upon the lateral faces of  
the shank, substantially as described. 20
- In testimony whereof I sign this specifica-  
tion in the presence of two witnesses.
- JOSEPH ELDER.
- Witnesses: -  
C. F. HITCHCOCK,  
FRANK JOHNSON.