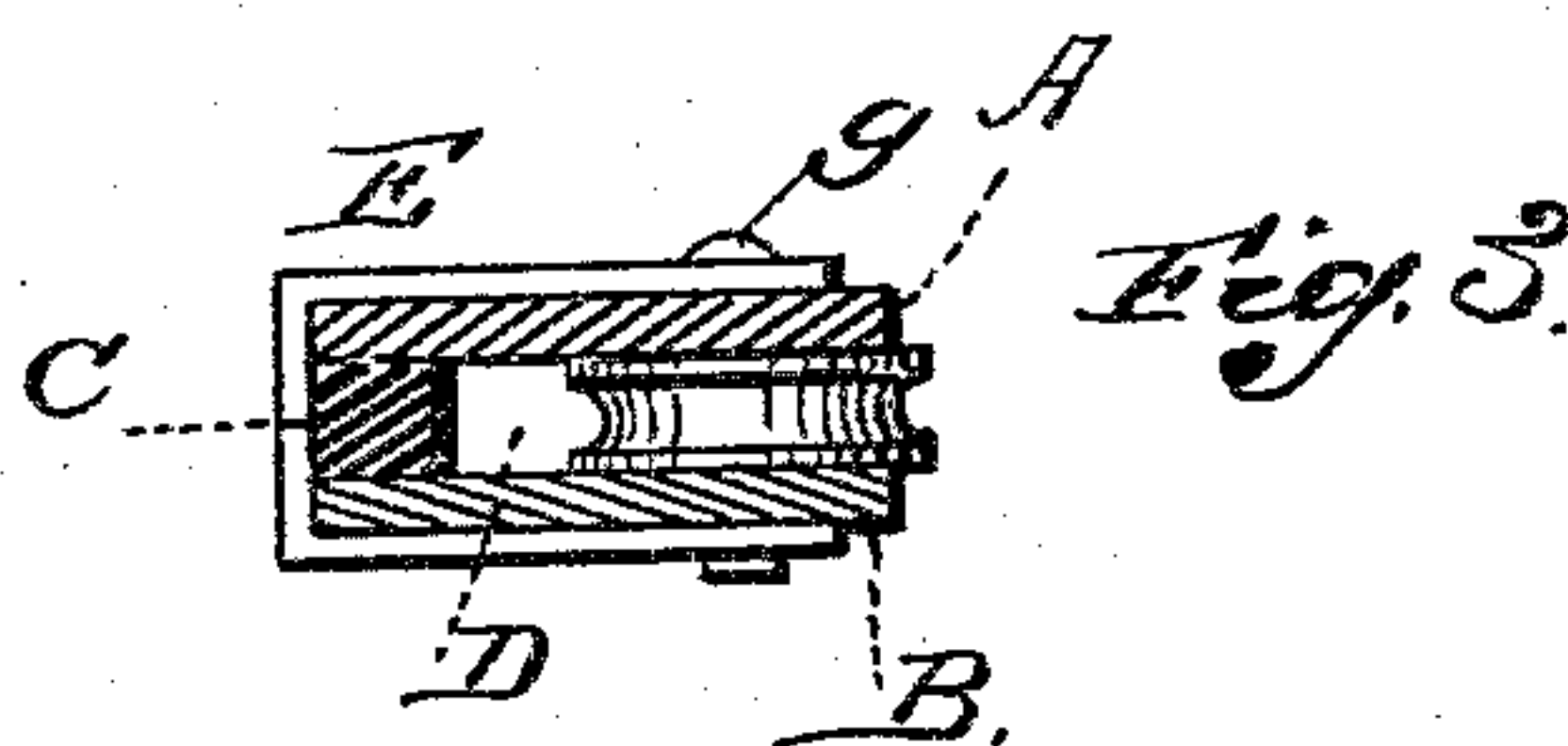
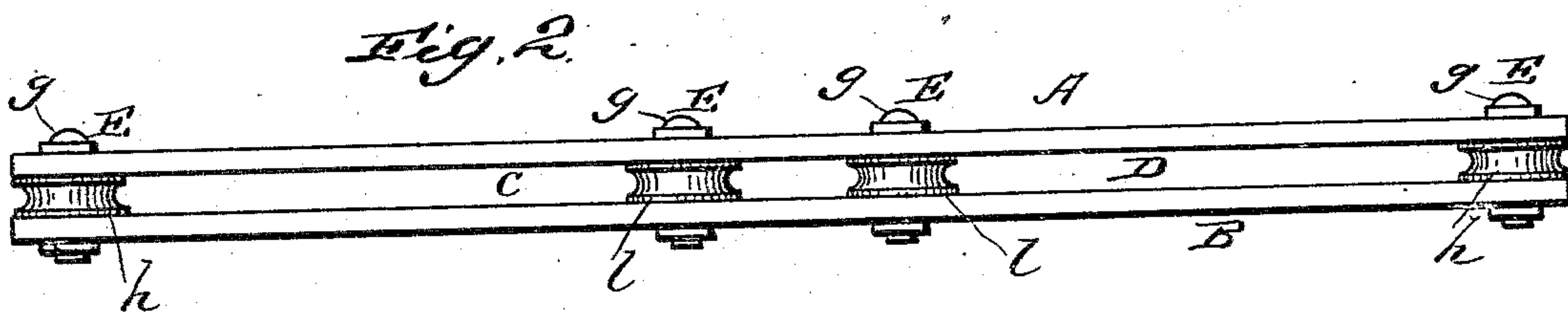
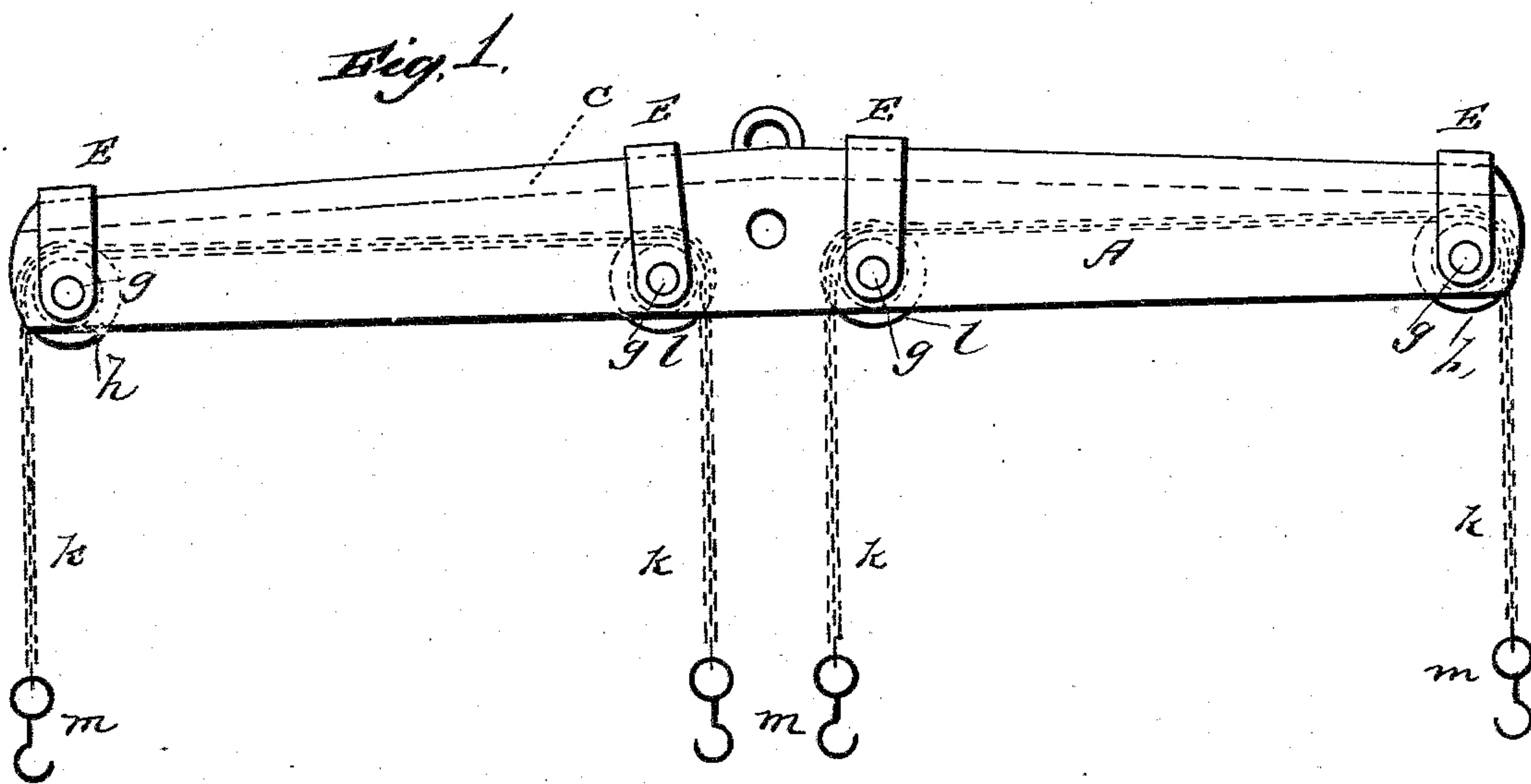


(No Model.)

C. DUCHARME.
DRAFT EQUALIZER.

No. 305,905.

Patented Sept. 30, 1884.



WITNESSES

H. Bates.
John D. Morrow.

INVENTOR

INVENTOR
Charles Ducharme
by Anderson Smith.
his ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES DUCHARME, OF CHICAGO, ILLINOIS.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 305,905, dated September 30, 1884.

Application filed March 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DUCHARME, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Draft-Equalizers; 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 letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a plan view of my device. Fig. 2 is a front view of the same, and Fig. 3 is a vertical transverse section.

This invention has relation to draft-equalizing bars for the running-gear of vehicles; and it consists in the construction and novel arrangement of devices, as hereinafter set forth, and pointed out in the appended claim.

In the accompanying drawings my draft-bar is represented as constructed of two parallel bars, A and B, one above the other, and separated therefrom by an intervening back strip or filling, C, so that a recess is made longitudinally in the bar, as at D, open in front but closed along the back.

The pieces A, B, and C are firmly bolted together, and are bound with straps E, extending around the back, at the ends, and in the middle portion. On the bolts *g*, which extend vertically through the longitudinal recess or cavity D, are the grooved pulleys *h* and *l*; and *k k* represent chains or sections of wire cable or rope, which extend, respectively, around the

end pulley, *h*, and middle pulley, *l*, on each side of the center.

The ends of the chains or cable-sections are provided with eyes or hooks or other common fastenings, as at *m*, for the attachment of the tugs. These chains or cable-sections play in the back part of the recess D, out of sight, being covered in by the back strip, C, which keeps them in engagement with the pulley-grooves and in proper working order, and protects them from casual injury.

The draft-bar is attached centrally to the running-gear by means of an eyebolt or by a pin passing through apertures in the upper and lower bars. In appearance it is as neat as a solid bar, and it will be found to serve an important purpose in preserving horses and mules in good condition under work.

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

The draft-equalizing bar consisting of an upper bar, A, a lower parallel bar, B, and an intervening back strip, C, bolted together and secured with binding-straps at the middle and ends, the middle and end pulleys, and the chains or cable-sections working in the longitudinal recess of the bar behind the pulleys and in front of the back strip, as shown and described.

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

CHARLES DUCHARME.

Witnesses:

CLEMENT BOURDON,
MARTIN BURKE.