No. 872,045. PATENTED NOV. 26, 1907.

A. BECKER.

DUMPING CAR.

APPLICATION FILED MAR. 20, 1907.

Fig. 1.

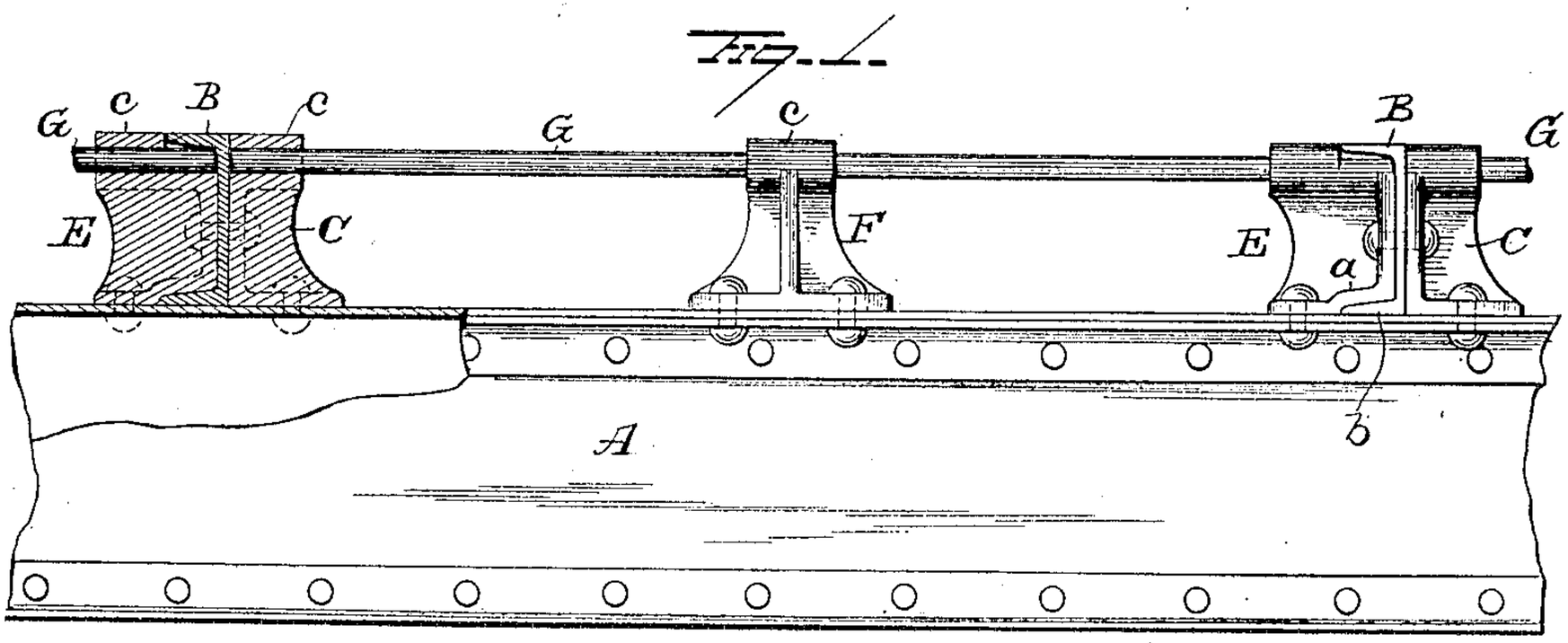


Fig. 2.

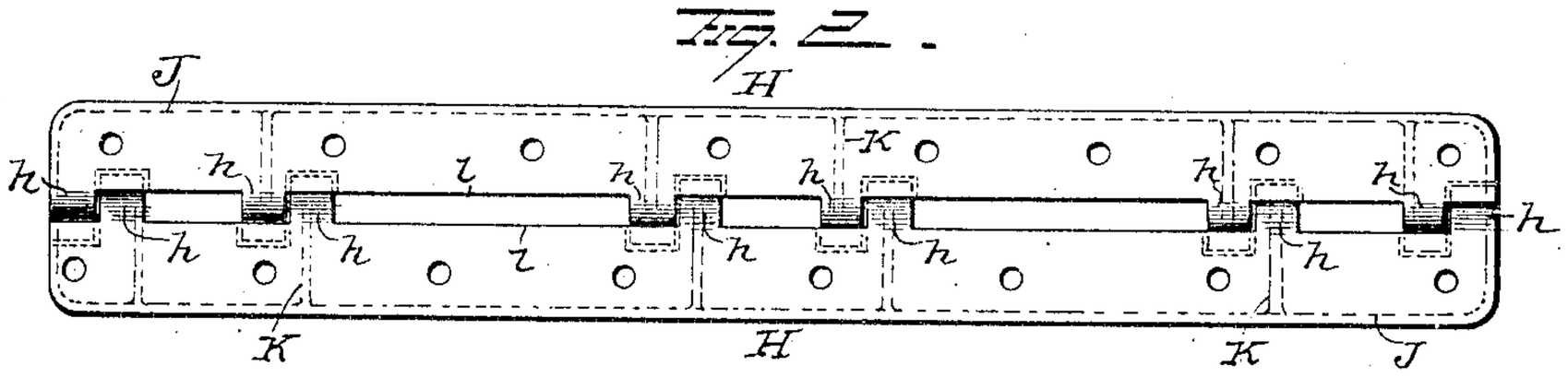
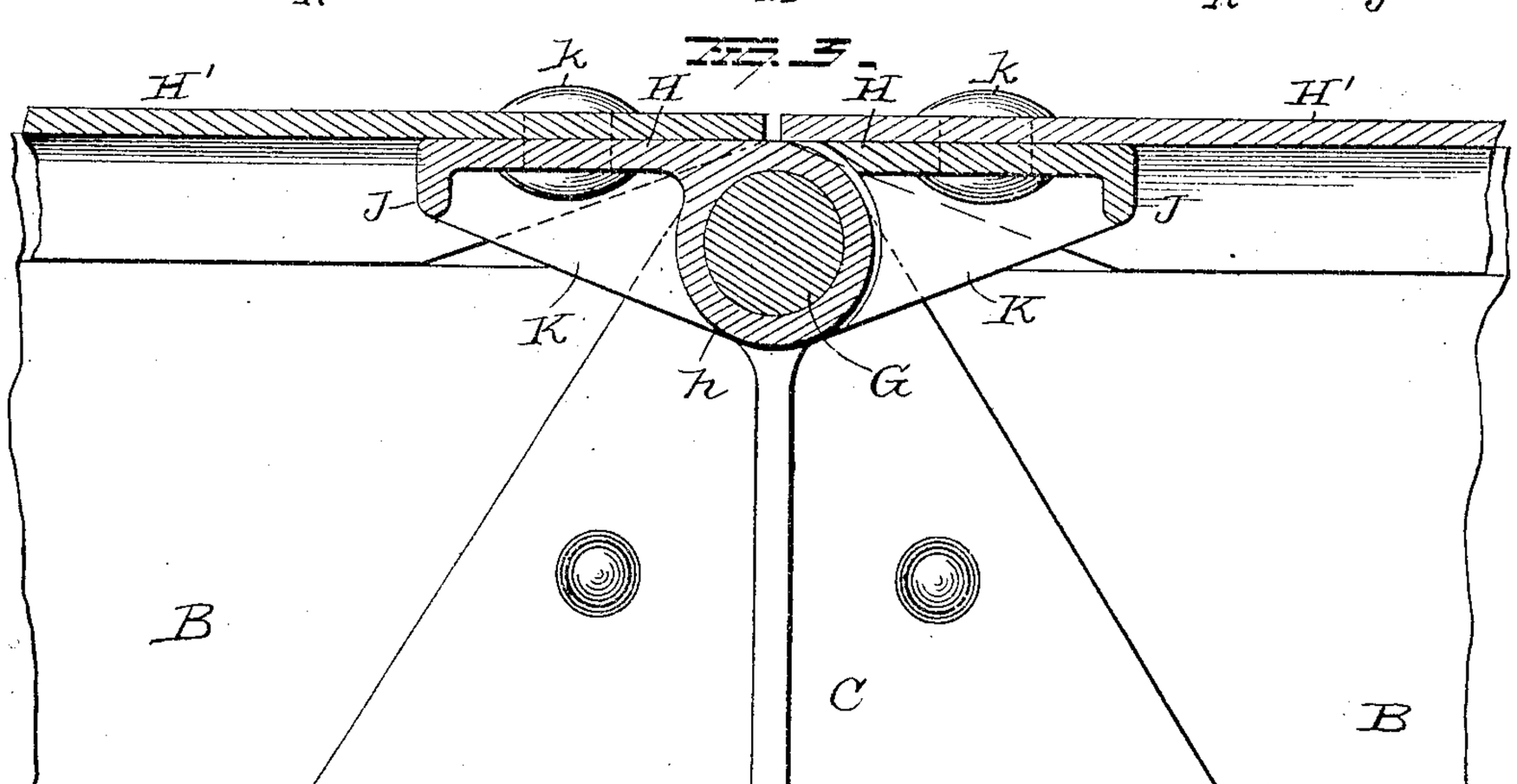


Fig. 3.

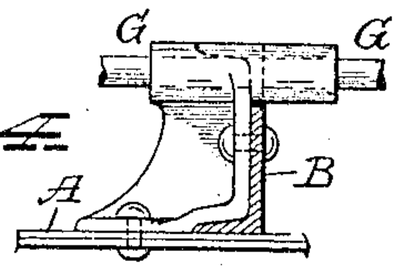


WITNESSES

E. L. Nottingham

G. F. Downing

Fig. 4.



INVENTOR

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UNITED STATES PATENT OFFICE.

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DUMPING-CAR.

No. 872,045. Specification of Letters Patent. Patented Nov. 26, 1907.

Application filed March 20, 1907. Serial No. 363,438.

To all whom it may concern:

Be it known that I, ANTON BECKER, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Dumping-Cars; and I do hereby 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.

My invention relates to an improvement in dumping cars and consists in certain features of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a portion of the center sill of a steel dumping car. Fig. 2 is a plan view of two of the dumping doors and Fig. 3 is a transverse section of the dumping doors, and center sill. Fig. 4 is a modification.

A represents the center sill of a steel dumping car. This sill is preferably a box girder of sufficient strength to carry substantially the entire load of the car body and its contents.

B are cross-sills which are supported on the top of the center sill and are firmly secured thereto in any desired manner. Cross-sills B may be made of channels as shown, or may be made of **I**-beams.

C is a bracket which is constructed to seat against the plain flat side of the cross sill so as to form a support therefor. Bracket C is riveted to the cross sill as shown and is also riveted to the center sill. Against the opposite side of the cross-sill is seated a bracket E which is constructed to fit against the channeled side of the cross sill. The side of the bracket E adjacent to the channeled side of the cross sill is constructed with a recessed bottom flange *a* which fits and rests upon the lower flange *b* of the cross-sill. This bracket is riveted to the cross sill and also to the center sill.

Between the cross sills is located a bracket F of any desired form and construction and which is riveted to the center sill. Each one of these brackets is provided at its upper end with a cylindrical bearing *c* in which is mounted the rod G on which the dumping doors H H^1 are hinged. Instead of providing three brackets between the adjacent cross sills two brackets might be sufficient in some cases.

Fig. 4 represents the channel brackets provided with an elongated bearing which extends through a hole formed in the web of the cross sill. This elongated bearing permits the adjacent ends of two rods G to be supported by a single bracket. If desired a single rod of sufficient length to support the entire series of doors, or any number of the series may be used. The brackets not only serve to support the rods G on which the dumping doors are hinged, but also serve as braces to resist the pulling and bufling strains to which the cross-sills are subjected and retain the latter against injury or displacement.

H H represents two hinged plates which are journaled upon the rod G. Each hinged plate is preferably formed of cast metal, and is constructed with a series of cylindrical bearings *h* which are mounted upon the rod G, the bearings *h* of one hinged plate intersecting with those on the opposite plate as represented in Fig. 2 of the drawings. Each hinged plate is constructed at its outer edge with a depending strengthening rib J, and with a series of lateral strengthening flanges K extending from the cylindrical bearings *h*, to the strengthening ribs J. To each one of the hinged plates is riveted one of the dumping doors H^1 by rivets *k* passing through the door and through the hinged plate between the strengthening flanges K. The adjacent edges *l*, *l*, of the hinges are located in close proximity to each other and effectually prevent the escape of any material through the joints of the hinged plates. This construction of hinged plates for the doors is extremely light, strong and durable and can be produced at a comparatively small initial cost.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. The combination with the center sill and cross sills, of door supporting brackets secured to both the cross sills and center sill, substantially as set forth.

2. The combination with the center sill and cross sills, of door supporting brackets constructed to seat against the webs of the cross sills, and riveted thereto, and to the center sill, substantially as set forth.

3. The combination with the center sill and cross sills, of door supporting brackets constructed to seat against the cross sills and upon the center sill, and secured to both sills,

a rod mounted in the upper ends of said brackets, and dumping doors hinged to said rod, substantially as set forth.

4. The combination with a center sill, a series of brackets thereon having alining bearing sleeves, and a rod mounted in said bearing sleeves, of a pair of doors having their inner edges disposed in proximity to each other over said rod, and a hinge plate secured to the under face of each door, said hinge plate provided at their inner edges with bearings mounted on said rod under the inner edges of the doors.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ANTON BECKER.

Witnesses:
C. H. WEBER,
F. W. LIVINGSTON.