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PATENTED FEB. 3, 1903.

W. J. SELLECK.
STORAGE AND RELOADING APPARATUS.

APPLICATION FILED FEB. 10, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

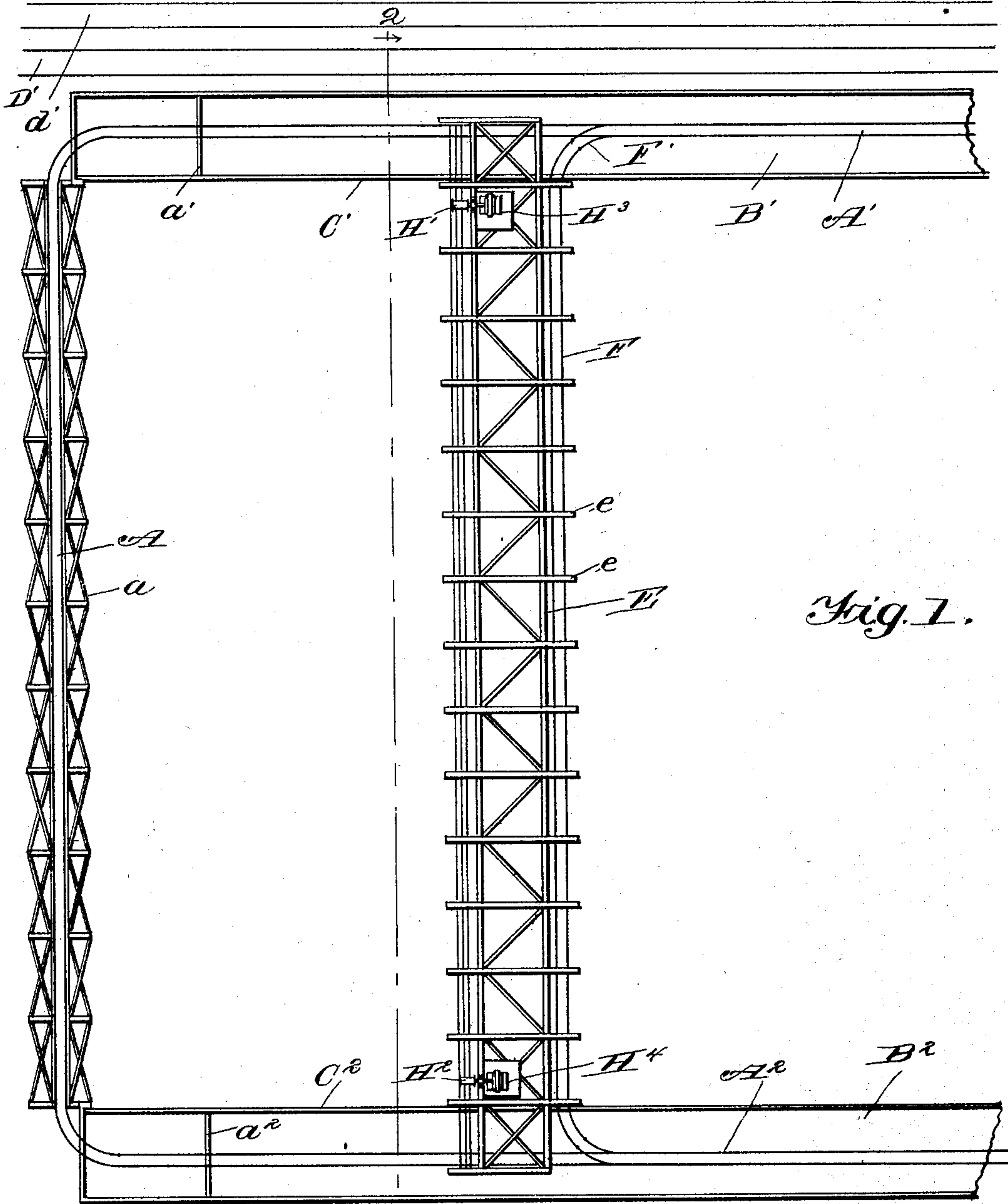


Fig. 1.

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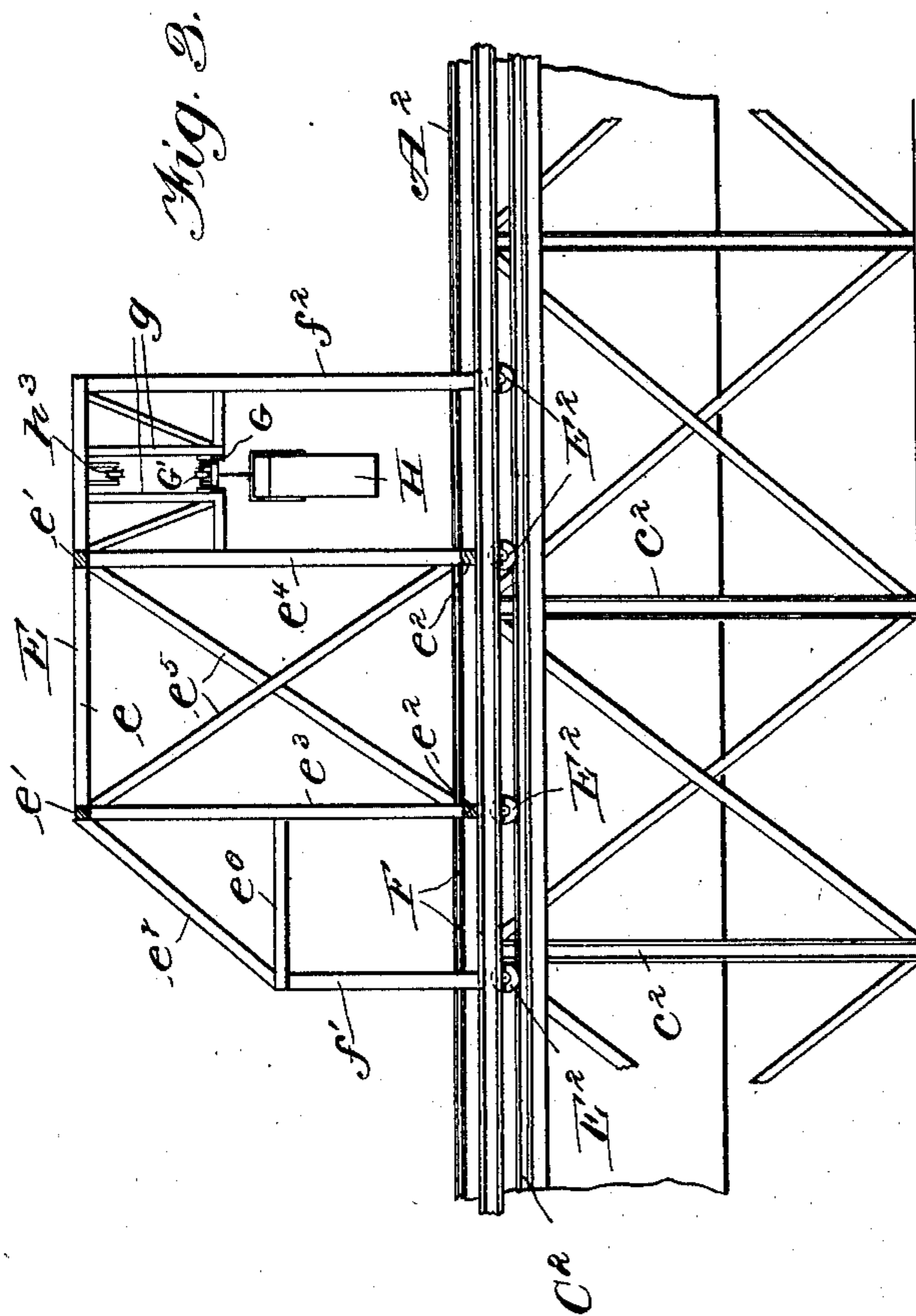
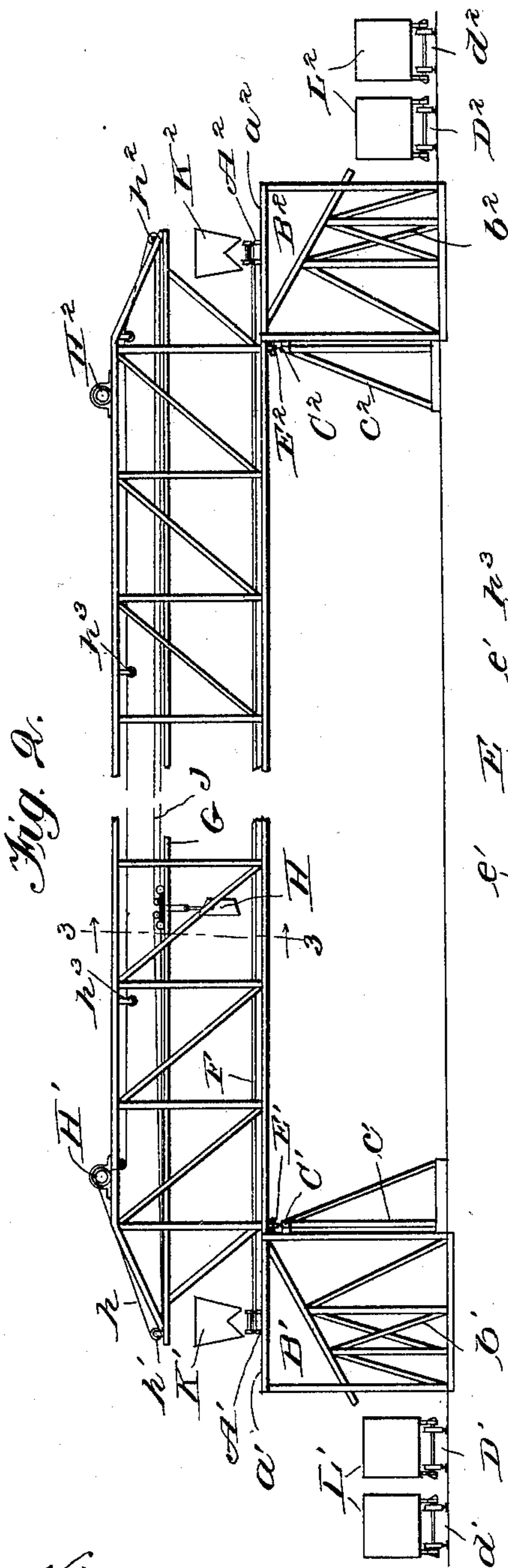
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2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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STORAGE AND RELOADING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 719,518, dated February 3, 1903.

Application filed February 10, 1902. Serial No. 93,411. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SELLECK, a citizen of the United States, residing at Riverside, county of Fairfield, State of Connecticut, have invented a certain new and useful Improvement in Storage and Reloading Apparatus; 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 appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates generally to an apparatus for storing and reloading coal, ore, or other material.

It is customary when cars or vessels are unloaded and it is not desired to at once reship the coal or other material to store the same either in pockets or in a storage-space.

The object of my invention is to provide an apparatus for depositing and removing coal or other material throughout the available storage-space, so that every portion thereof may be rendered accessible, and thereby utilized.

A further object of my invention is to provide an apparatus of the character described which will be simple and inexpensive in construction, thoroughly practicable in operation, and which will enable the material to be easily and economically handled.

My invention consists in a traveling crane located above and across a storage-space and supported at its ends adjacent to a track extending around the storage area, so that the loaded cars may be switched from the point on the track at which the crane may be located and then dumped at any desired point on the crane.

My invention further consists in providing the crane with means for removing the material from storage and reloading the same.

My invention will be more fully described hereinafter with reference to the accompanying drawings, in which the same is illustrated in a convenient and practical form, and in which—

Figure 1 is a plan view of my improved apparatus; Fig. 2, a view taken on line 2 2, Fig. 1, and looking in the direction of the arrows; and Fig. 3, a sectional view on line 3 3,

Fig. 2, looking in the direction indicated by the arrows.

The same reference characters indicate the same parts in the several figures of the drawings.

A storage-space is located between parallel tracks A' and A^2 , which extend from points where coal or other material is unloaded from vessels or railroad-cars. The tracks A' and A^2 are united by the transverse track A . The track A is supported at the desired height by any suitable structure—as, for instance, the trestle a . The tracks A' and A^2 are located above parallel storage-pockets B' and B^2 , which are supported in an elevated position by any desired form of props or supports b' and b^2 , respectively. The tracks A' and A^2 directly rest upon stringers which are supported by transverse ties a' and a^2 , extending across the pockets B' and B^2 , respectively.

The tracks A' and A^2 are of a gage usual to hopper-bottom cars commonly in use for handling coal, such as indicated at K' and K^2 in Fig. 2. The cars may be drawn around the tracks A' , A , and A^2 by any desired motive power, a cable being the usual means of propulsion.

Parallel tracks C' and C^2 are located adjacent to the inner opposite sides of the pockets B' and B^2 and are supported in an elevated position by any suitable means—such, for instance, as the standards and props c' and c^2 . The rails C' and C^2 are located at a slightly lower level than the tracks A' and A^2 . A traveling crane E is provided with wheels E' and E^2 , located beneath its opposite ends and spaced apart a distance equal to the distance between the parallel tracks C' and C^2 , upon which the wheels are supported. The traveling crane may be of any suitable structure. In Fig. 3 it is shown as comprising upper and lower parallel longitudinal stringers e' and e^2 , the upper pair of which are supported at frequent intervals by cross-beams e . The upper parallel stringers e' and e^2 are supported in an elevated position above the lower stringers e^2 by standards e^3 and e^4 . Crossed struts e^5 give the necessary rigidity and strength to the crane. Vertical standards f' of a less height than and spaced apart from the standards f^2 are provided at each end of the crane above the wheels and are supported

at their upper ends by cross-ties e^6 and inclined connecting-struts e^7 , extending from the tops of the standards f' to the tops of the standards e^3 .

5 Tracks F are carried by the traveling crane E and extend between the standards f' and e^3 , as shown in Fig. 3. The gage of the track F is the same as that of the tracks A' and A^2 . Movable switch-points F' and F^2 are pivotally
10 connected with the ends of the rails constituting the track F and extend over the tops of the parallel rails of the tracks A' and A^2 , as shown in Fig. 1.

Supported upon the crane E and extending
15 between the standards e^4 and f^2 at each end thereof is a track G, supported beneath the cross-beams e by any suitable means—as, for instance, the depending hangers g . Pairs of guide-pulleys h' and h^2 are supported upon
20 the crane E at the opposite ends thereof, as indicated in Fig. 2. A trolley G' is supported by the rails of the track G and is provided with guide-pulleys, over which passes a cable j . A bucket H is supported beneath the trolley
25 G' by means of a pulley, beneath which passes the cable j . The cable j extends in opposite directions to the ends of the traveling crane, where it passes around guide-pulleys h' and h^2 and is connected with any suitable means
30 for elevating and lowering the bucket H—as, for instance, a drum operated by the motor H^3 to wind and unwind the cable j . The trolley G' is connected at each side thereof to an endless cable h , which is guided around the
35 pulleys h' and h^2 and supported by the pulleys h^3 . The endless cable h passes around a drum H' , which is rotated in either direction by any suitable gearing interposed between such drum and the motor H^3 . As such
40 means of propelling the trolley G' form no part of my invention, I deem it unnecessary to illustrate in detail.

More than one trolley G' and bucket H, depending therefrom, may, if desired, be em-
45 ployed, in which case the second motor H^4 and drum H^2 , operatively connected thereto, may be utilized.

It will be noticed that the track G is located
50 above the floor of the crane and in a higher plane than the track F, which is supported on the floor of the crane. Consequently the bucket H, which is suspended from the trolley G' , is supported between the track G and the floor of the crane and does not project be-
55 low the bottom of the crane when it is being carried by the trolley to either of the side pockets. By this arrangement the coal or other material may be piled upon the storage-space to the level of the bottom of the crane
60 without interfering with the movement of the bucket H, and thereby diminishing the distance the coal must fall when the cars supported on the track F are dumped.

Located at either side of and parallel with
65 the pockets B' and B^2 are tracks for railway-cars D' and D^2 and also other tracks, d' and d^2 , if desired. As the lowest points in the

pockets are above the tops of or doors in the cars L' and L^2 , the coal or other material will slide by gravity from the pockets into the
70 cars on the tracks D' and D^2 adjacent to the pockets.

Any suitable propelling means may be provided for the traveling crane E in order to move the same along its supporting-tracks C'
75 and C^2 . The motors H^3 and H^4 may, if desired, be utilized for this purpose.

The operation of my invention is as follows: The hopper-bottom cars K' and K^2 are loaded with coal or other material which is to be
80 stored either in the storage-pockets B' B^2 or in the storage-space located between the pockets. The tracks A' and A^2 , upon which the cars are drawn by a cable or other propelling means, extend to the point where the coal is
85 to be unloaded either from vessels or cars. When a car drawn along the track A' reaches the movable switch-points F' , it is directed to the track F on the traveling crane E. As the traveling crane preferably slightly inclines
90 from the track A' toward the track A^2 , the loaded car will run along the track F by gravity. When the car reaches the desired point on the crane, it is dumped, preferably automatically, by any of the well-known means
95 for such purpose. The car then continues across the crane to the switch-points F^2 , by which it is guided to the return-track A^2 and drawn back to the point where the coal is being unloaded. The cars may be dumped at
100 any point on the tracks A' and A^2 so as to fill the pockets B' and B^2 below the same, and in order to permit the loaded cars to pass from the track A' to any point along the track A^2 above the pocket B^2 the switch-points
105 F' and F^2 may be swung away from the tracks A' and A^2 , thereby permitting the cars to pass beneath the ends of the crane, which overhang the tracks A' and A^2 .

The traveling crane as occasion requires
110 is propelled backward and forward upon the supporting-tracks C' and C^2 , thereby so adjusting its position as to enable the loaded cars to reach any point above the storage-space. Consequently the entire storage area
115 may be utilized.

When it is desired to reload the coal, the bucket H is lowered and the trolley propelled toward either end of the crane, thereby removing the coal in a well-known manner from
120 any point in the storage-space beneath the crane and conveying the same to points above the pockets B' and B^2 , into which it is dumped preparatory to loading it upon the cars on the tracks D' and D^2 . By adjusting the position
125 of the crane the bucket may reach any point of the storage area.

From the foregoing description it will be observed that I have invented an apparatus capable of economically conveying coal or
130 other material to any point in a given storage-space or to any point in pockets located at either side of the storage-space. It will also be observed that the coal or other material

may be readily removed from any point in the storage-space and reloaded when desired.

While I have described more or less precisely the details of construction, I do not wish to be understood as limiting myself thereto, as I contemplate changes in form, the proportion of parts, and the substitution of equivalents as circumstances may suggest or render expedient without departing from the spirit of my invention.

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

1. The combination with a storage area, of pockets located on one or more sides thereof, stationary tracks supported above said pockets, and an elevated movable track extending across said storage area and connected to said stationary tracks.

2. The combination with a storage area, of pockets located on either side of said storage area, parallel stationary tracks supported above said pockets, a transverse stationary track connecting corresponding ends of said parallel tracks, an inclined movable track extending transversely across said storage area and connected at its opposite ends to said parallel stationary tracks.

3. The combination with a storage area, of pockets located on either side of said storage area, parallel stationary tracks supported above said pockets, a transverse stationary track connecting the corresponding ends of said parallel tracks, an inclined traveling crane extending transversely across said storage area, a track supported upon said crane, movable switch-points connecting the opposite ends of the track on said crane with said parallel stationary tracks.

4. The combination with a storage area, of elevated tracks on one or more sides thereof, storage-pockets beneath said tracks, a traveling crane extending across said storage area, a track on said crane connected with said stationary elevated tracks, and conveying apparatus

also carried by said crane adapted to remove material from points in said storage-space beneath the crane and depositing the same in said pockets.

5. The combination with a storage area, of elevated tracks on one or more sides thereof, storage-pockets beneath said tracks, a traveling crane extending across said storage area, a track on said crane connected with said stationary elevated tracks, a second track on said crane extending at its ends over said pockets, a trolley adapted to travel upon said second track, and a bucket operatively connected to and depending from said trolley for transferring material from the storage area to said pockets.

6. The combination with a storage area, of stationary tracks on one or more sides thereof, a traveling crane supported above and extending across said area, a track on said crane connected with said stationary tracks, a second track on said crane located at a higher plane than said first track and extending over said stationary tracks, and conveying apparatus supported by and depending from said second track for transferring material from points within said storage area to points at one side thereof.

7. The combination with a storage area, of elevated tracks on one or more sides thereof, a storage-pocket adjacent to said tracks, a traveling crane extending across said storage area, a track on said crane connected with said stationary elevated tracks, and conveying apparatus also carried by said crane adapted to remove material from points in said storage-space beneath the crane and deposit the same in said pocket.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM J. SELLECK.

Witnesses:

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CLARA C. CUNNINGHAM.