

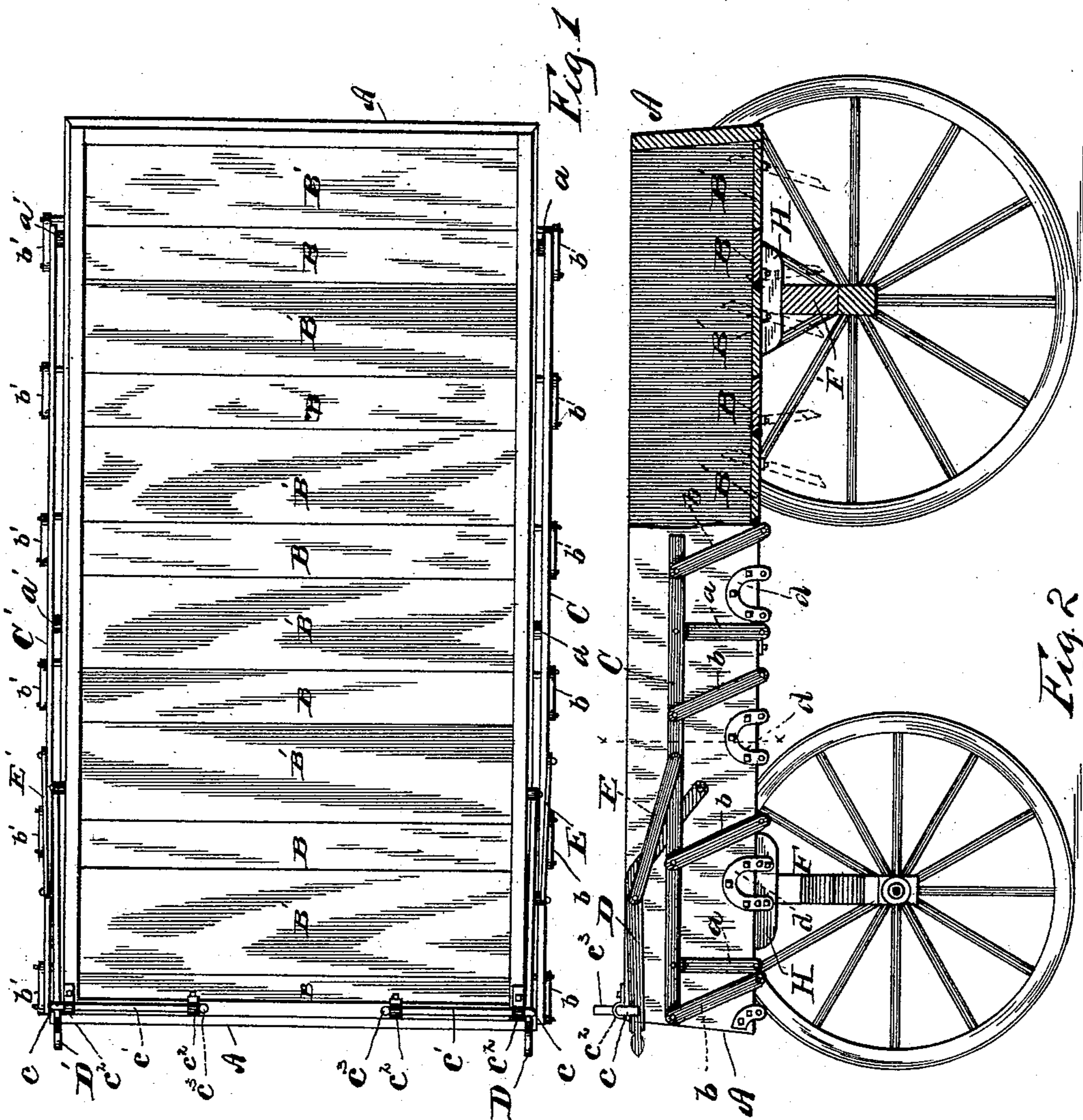
(No Model.)

2 Sheets—Sheet 1.

J. CAMERON.
DUMPING WAGON.

No. 496,853.

Patented May 9, 1893.



WITNESSES:

H. B. Bradshaw
Frank Watt

INVENTOR

Joseph Cameron
BY *Stacy & Stephens*
ATTORNEYS

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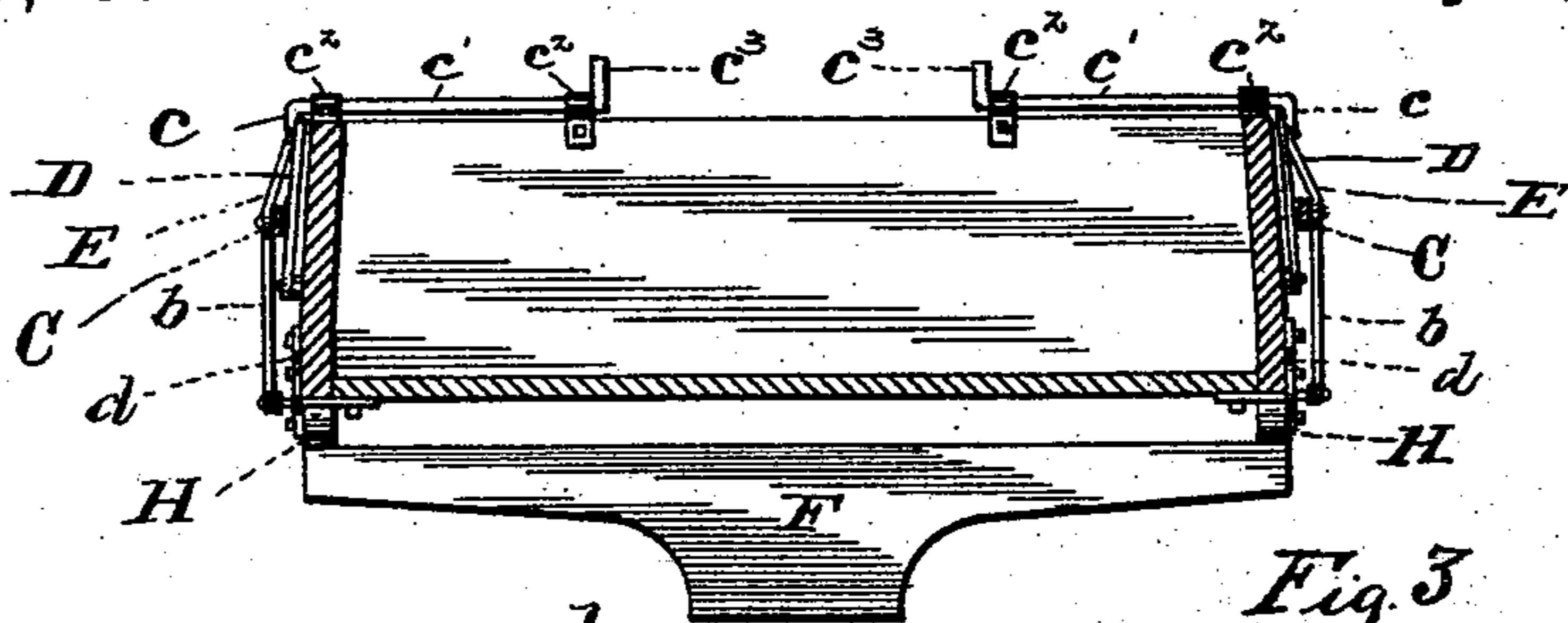


Fig. 3

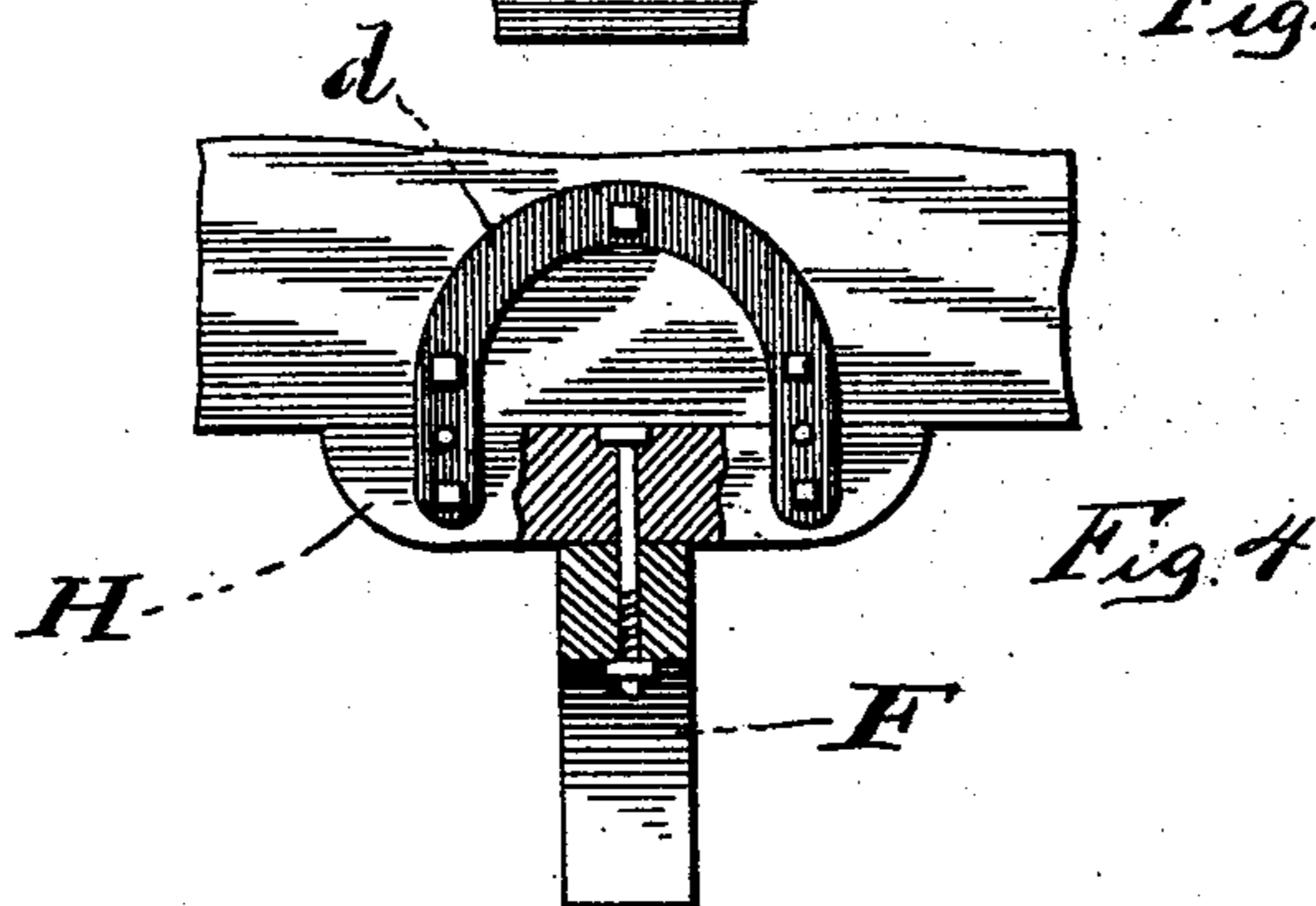


Fig. 4

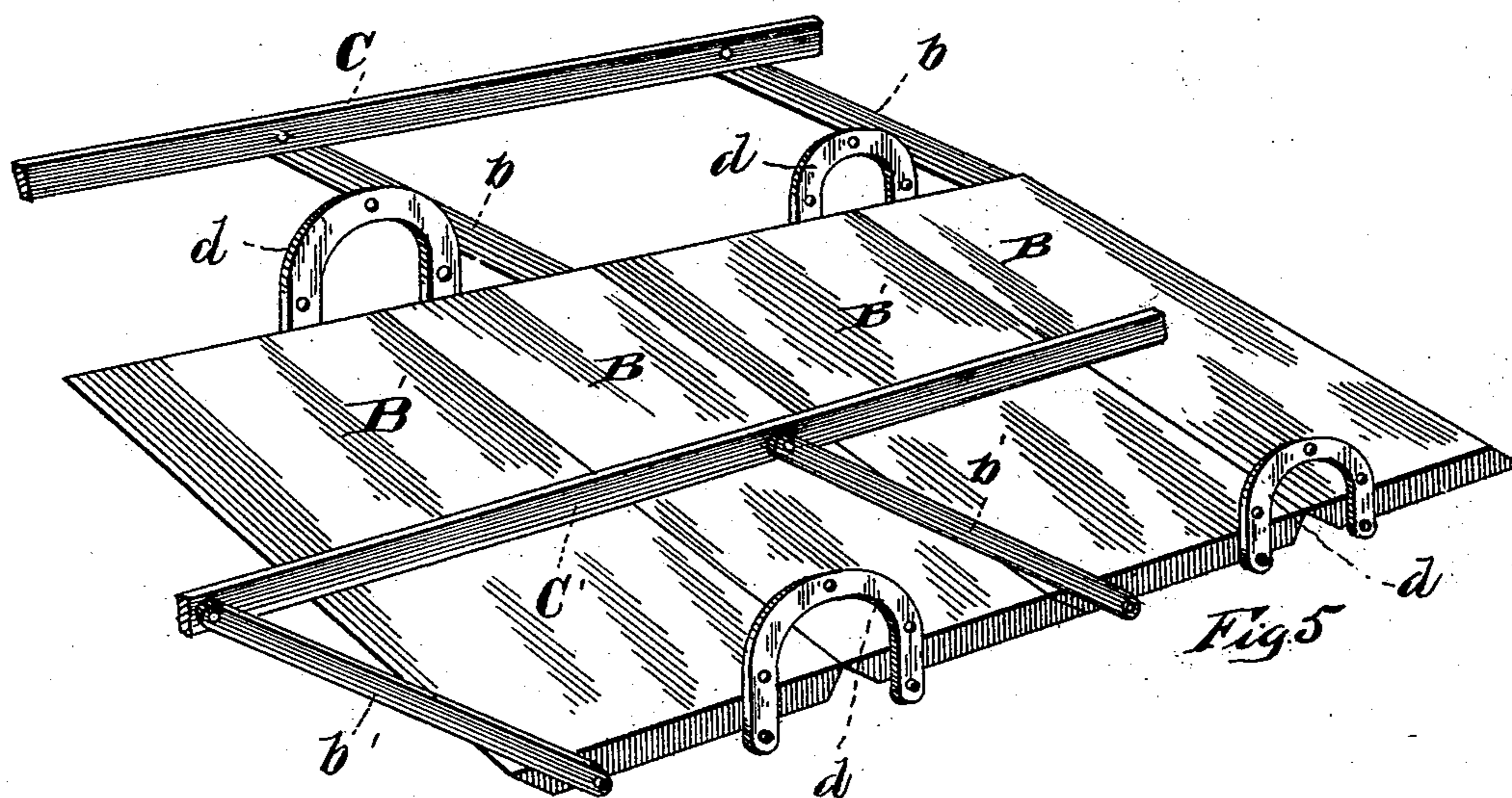


Fig. 5

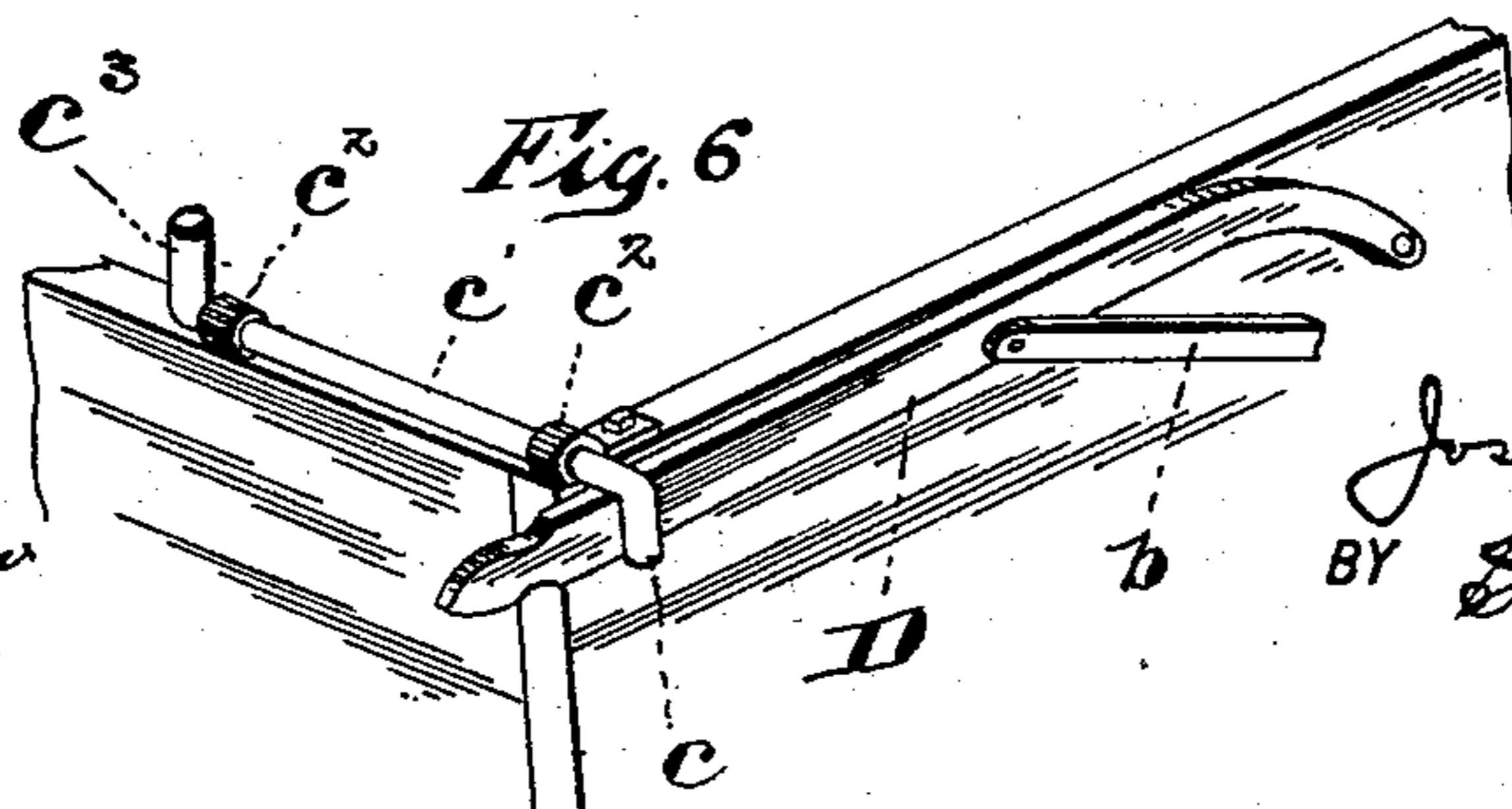


Fig. 6

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UNITED STATES PATENT OFFICE.

JOSEPH CAMERON, OF FINDLAY, OHIO, ASSIGNOR OF TWO-THIRDS TO
ADOLPH M. SHEPPARD AND JOHN GOODMAN, OF SAME PLACE.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 496,853, dated May 9, 1893.

Application filed October 13, 1892. Serial No. 448,720. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH CAMERON, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

My invention relates to improvements in dumping wagons and the object of my invention is to provide a wagon bed the bottom of which is composed of a series of hinged slats, arranged in connection with each other, and with a series of levers, whereby the slats may be turned down and thus open the bottom of the bed for the purpose of dumping the load contained therein.

My invention consists in the various constructions and combinations of parts hereinafter described and pointed out in the claims. In the accompanying drawings Figure 1 is a plan view of a wagon embodying my invention. Fig. 2 is a side elevation, partly in section, of the same, some of the parts being omitted to better illustrate the constructions and operations of the essential features. Fig. 3 is a transverse sectional view of the same. Fig. 4 is a detail view showing the manner of supporting the hinged slats and connecting the bed to the bolster. Fig. 5 is a detail view in perspective, showing the arrangement of the slats. Fig. 6 is a perspective view in detail of the lever engaging mechanism.

Like parts are represented by similar letters of reference in the several views.

In the said drawings A A, represents the main body of the wagon or bed, the sides of which are preferably formed tapered, so that the bed shall be slightly larger at the bottom than at the top in the nature of an inverted hopper, so that the load, when dumped, as hereinafter described, may be more freely discharged. The bottom of the bed is composed of two series of slats B B', the respective slats of one series being arranged in pairs with the slats of the other series. Arranged on each side of the bed are longitudinal supporting and operating bars C C', supported at suitable intervals by pivoted links a a', which are in turn pivoted to suitable supports on the side of the bed A A. From each of the

supporting and operating bars C C', are extended pivoted link connections b b, which are connected at their opposite ends to projecting trunnions of the respective series of slats B B', all the slats of one series being connected by the links to the operating and supporting bar on one side of the bed and all the slats of the other series being connected by the links to the supporting and operating bar on the opposite side of the bed. The operating bars C C', are connected to the hand-levers D D', pivoted on the respective sides of the bed, a pivotal connection being formed between the said levers and operating bars by connecting bars E E'.

The levers D D', are adapted to be engaged, when in their normal position and with the slats closed, by the hook-shaped end c of a rock-shaft c', journaled in suitable bearings c², at the top of the bed in front, each of said rock-shafts being provided at the opposite end with an upturned arm c³, by means of which the shaft may be rotated so as to turn the hook-shaped end out of engagement with the lever and thus release the same.

As before stated the respective hinged slats of each series are paired with the slats of the next series. The slats B, however, of one series, are made narrower than the slats B', of the other series and are hinged at the extreme edge, so that in turning on the trunnions the movement of the slat is downward, as indicated by the dotted lines in Fig. 2. The wide slats B', however, of the other series and of each pair of slats, are hinged at a point removed from the edge, so that when the slat is turned on its trunnion about one third of the slat projects upward and two thirds downward from the horizontal plane in which they lie in their normal position. The trunnions on which the slats turn, and by means of which they are connected to the links a a', may be formed in any well known and suitable manner. These trunnions are preferably supported in inverted U-shaped irons d, which are bolted to the side of the bed, as shown, with their projecting ends pierced to receive the trunnions, each iron being adapted to take the trunnions of a wide and narrow slat.

Where the bed A A, is supported on the

bolsters F F', of the wagon, I preferably provide a raising block H H', which is bolted securely to the bolster, and form the U-shaped connecting piece with extended ends which
 5 extend below the pivot points and are bolted to the blocks H H', the bed being thus securely fastened to the bolsters of the wagon and the use of the ordinary standards omitted. (See Figs. 3 and 4 for detail.)

10 The respective edges of each of the slats are beveled, the respective edges of each of the wide slats being beveled in opposite directions, while the edges of the narrow slats are beveled in the same direction, so that one
 15 edge of said narrow slat will be beveled in the same direction as one edge of the wide slat and the other edge will be beveled in the opposite direction. The slats are so arranged with reference to each other that the inner
 20 approximate edges of each pair of slats are beveled in the opposite direction, so that in their normal position they stand flush at the top with the upper edges only in contact or in close proximity, while the outer edges of
 25 each pair overlap, as shown in Fig. 5.

In the operation of dumping the load the narrow slats are released first by releasing the hand-lever D, and forcing the operating bar C, backwardly and downwardly, thus
 30 through the link connections turning the pivoted slats on their trunnions or pivoted supports. The load is thus broken and a portion of it discharged, after which the wide slats are turned down in a similar manner, completely discharging the load, the extended
 35 portion of the wide slats turning up into the bed and thus thoroughly breaking the same and causing it to discharge. After the load is dumped the slats are returned to their normal position, the wide slats being first brought
 40 to the horizontal position then the narrow slats, the constructions being such that the overlapping parts are retained free from dirt or foreign matter which would prevent the
 45 closing of the slats, while by the arrangement and the constructions described the use of hoods or other coverings over the joints is obviated. At the point where the bolsters are secured to the bed a wide slat is employed, so
 50 that the extended portion thereof covers the said bolster and thus fills up the space over said bolster and axle without the aid of any intervening covering or other device. By having the bed formed slightly tapered from
 55 the top to the bottom, so that it is slightly larger at the bottom than at the top, the load will be readily discharged as soon as the bottom is opened by turning the slats, as described.

60 Having thus described my invention, I claim—

1. In a dumping wagon, a bed or box the bottom of which is formed of hinged slats each provided with a supporting trunnion, said
 65 slats being arranged in pairs with one narrow slat and one wide slat in each pair, the re-

spective slats being provided with the beveled edges, as described, and means for operating the respective slats of each pair independently, substantially as specified. 70

2. A bed or box the bottom of which is formed of hinged slats arranged in pairs, each pair consisting of a wide slat and a narrow slat, one slat of the pair being hinged in proximity to the edge thereof and the other at the point removed from the edge, substantially
 75 as and for the purpose specified.

3. In a dumping wagon, a bed or box the bottom of which is formed of hinged slats arranged in two series, one series consisting of
 80 narrow slats and the other of wider slats, an operating bar and supporting links on one side of said bed for operating one series of slats, and a similar bar and links on the opposite side of the bed for operating the other
 85 series of slats, the respective slats of each series being paired with respect to the other slats in the other series, and each slat being provided with beveled edges, substantially as and for the purpose specified. 90

4. In a dumping wagon, a bed or box formed with tapered sides in the nature of an inverted hopper, hinged slats forming the bottom of said bed arranged in pairs, the respective slats
 95 of each pair being arranged in different series and connected to different operating mechanism on opposite sides of the bed, substantially as specified.

5. In a dumping wagon, a bed or box the bottom of which is formed with a series of
 100 hinged slats, blocks secured to the bolster of said wagon and supporting said bed, connecting pieces connecting said bed to said blocks, the hinged slats being arranged in pairs with one or more pairs at the front and rear of
 105 each of said bolsters, a wide slat in each pair hinged at a point removed from the edge, so that the extended portion of two of said slats shall project over and cover the bolsters, substantially as specified. 110

6. In a bed or box having a bottom formed of a series of slats arranged in pairs, each pair consisting of a narrow slat and a wide slat, each of said slats being provided with beveled edges with their inner edges beveled
 115 in opposite directions and their outer edges beveled in the same direction so as to overlap, as described, U-shaped supporting pieces on the side of said bed for supporting the trunnions of said slats, operating bars on each
 120 side of the bed, each connected to one of the slats of each pair, a hand-lever for operating said bar, a link connection from said hand-lever to said bar, pivoted standards for supporting said bar, and a rock-shaft having a hook-
 125 shaped extremity for engaging said hand-lever, substantially as and for the purpose specified.

7. The combination with the tapered or hinged slats, of the U-shaped supporting
 130 pieces in which said slats are journaled, said slats being arranged in pairs with one slat

wider than the other, so that the extended
portion of the wide slat shall stand in prox-
imity to the hinged edge of the narrow slat
when in the normal position, each of said slats
5 being beveled, as described, hinged operating
bars connected by a link connection to said
slats, and hand-levers connected to said bars,
whereby the respective slats of each pair are

connected to different operating devices, sub-
stantially as specified. 10

In testimony whereof I have hereunto set
my hand this 5th day of October, A. D. 1892.

JOSEPH CAMERON.

Witnesses:

FRANK B. BLACKFORD,
JASON BLACKFORD.