

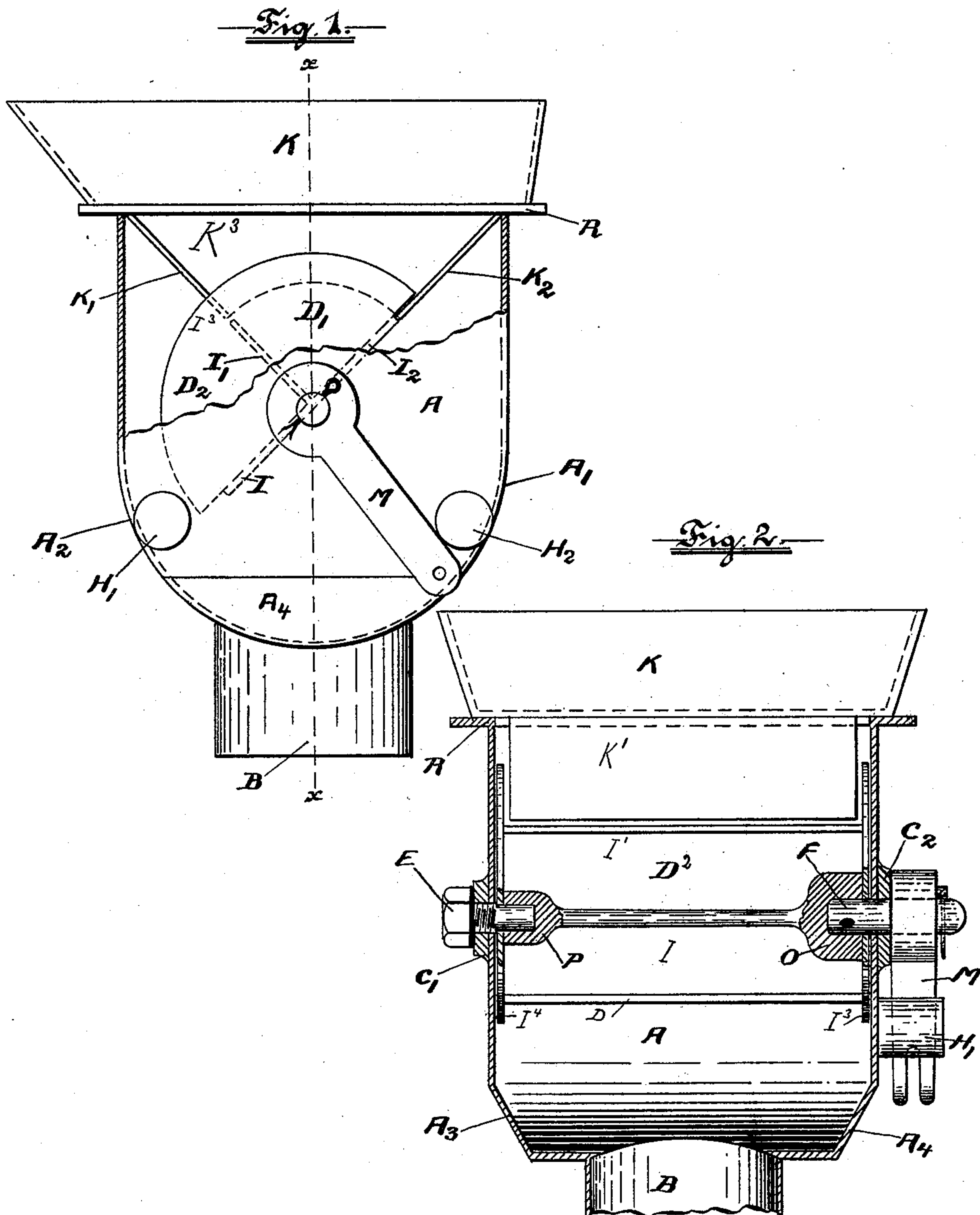
(No Model.)

2 Sheets—Sheet 1.

H. M. STILES.
SAND BOX FOR RAILROAD CARS.

No. 606,172.

Patented June 21, 1898.



—Witnesses—
Charles W. Brower
Arel V. Deeken

—Inventor—
Henry M. Stiles.
—by his Attorney—
August M. Preschius.

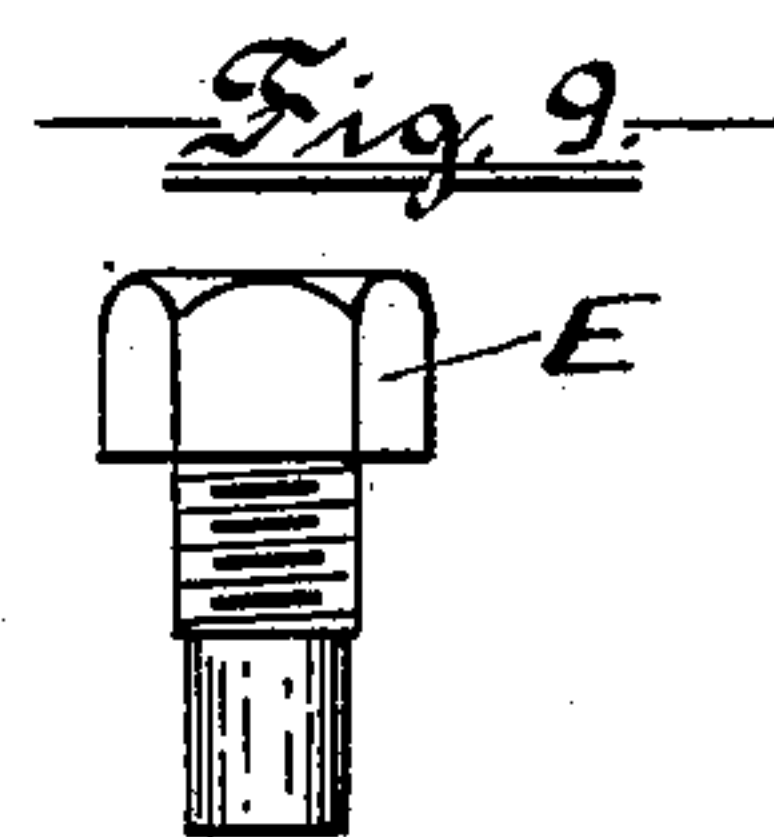
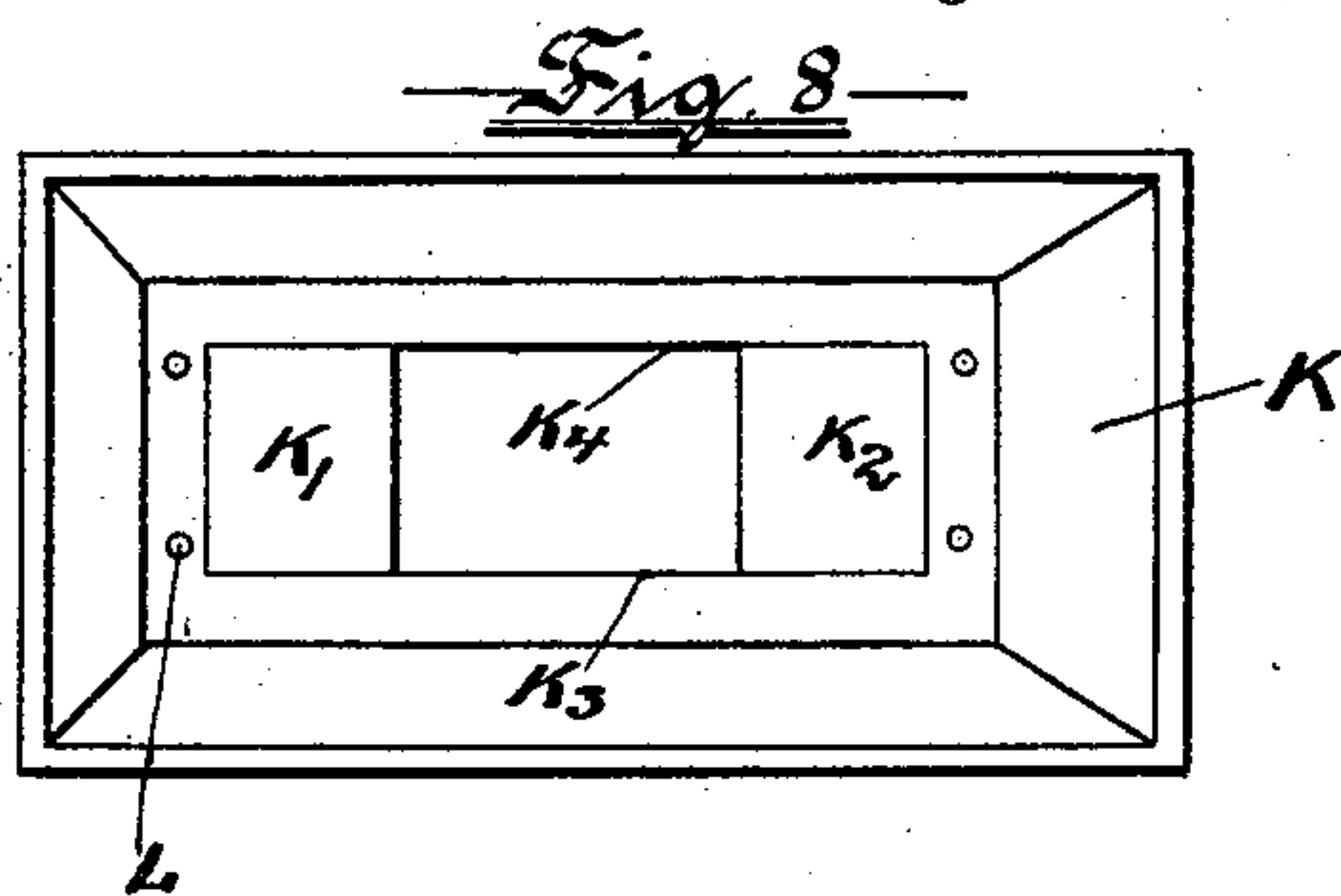
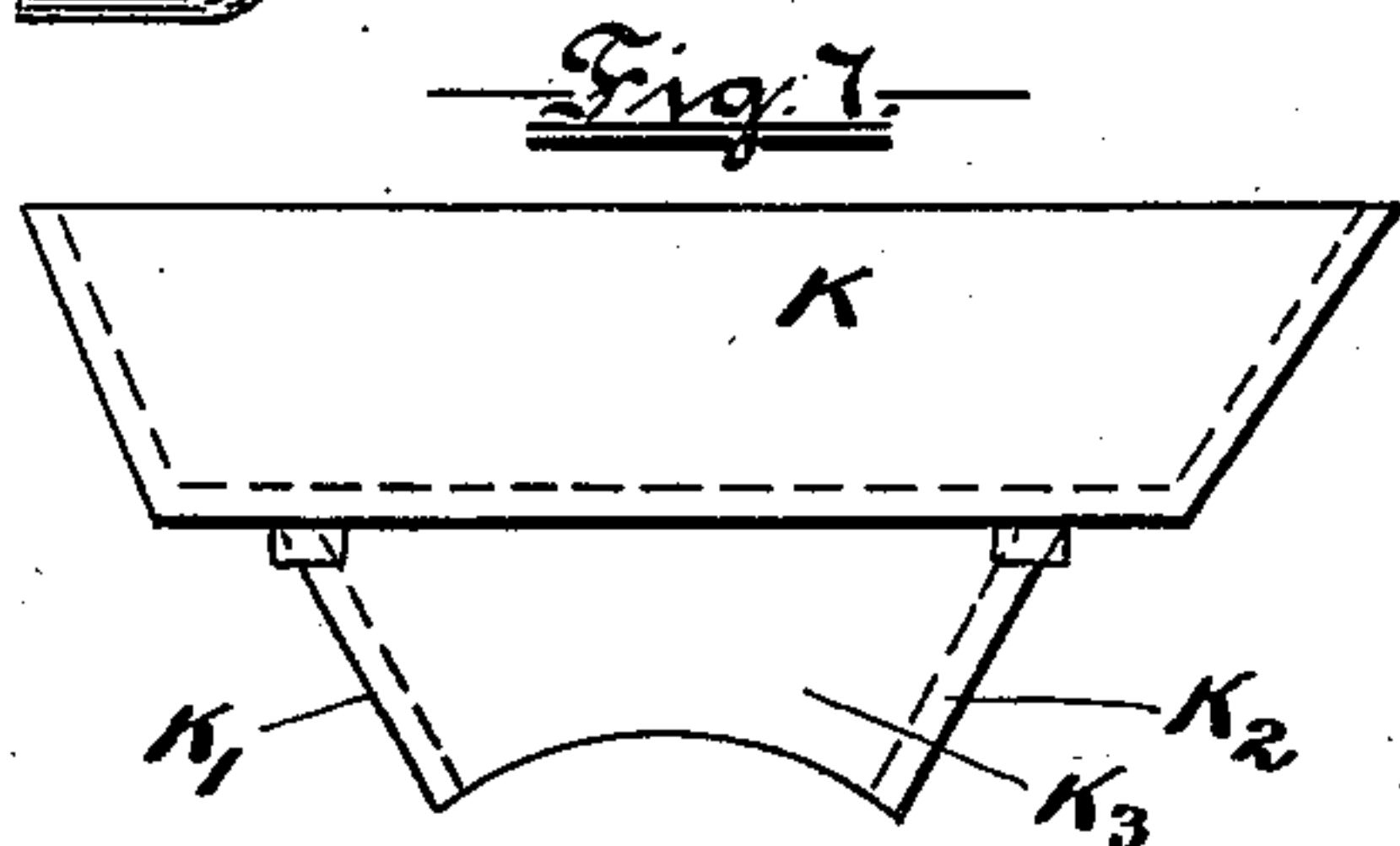
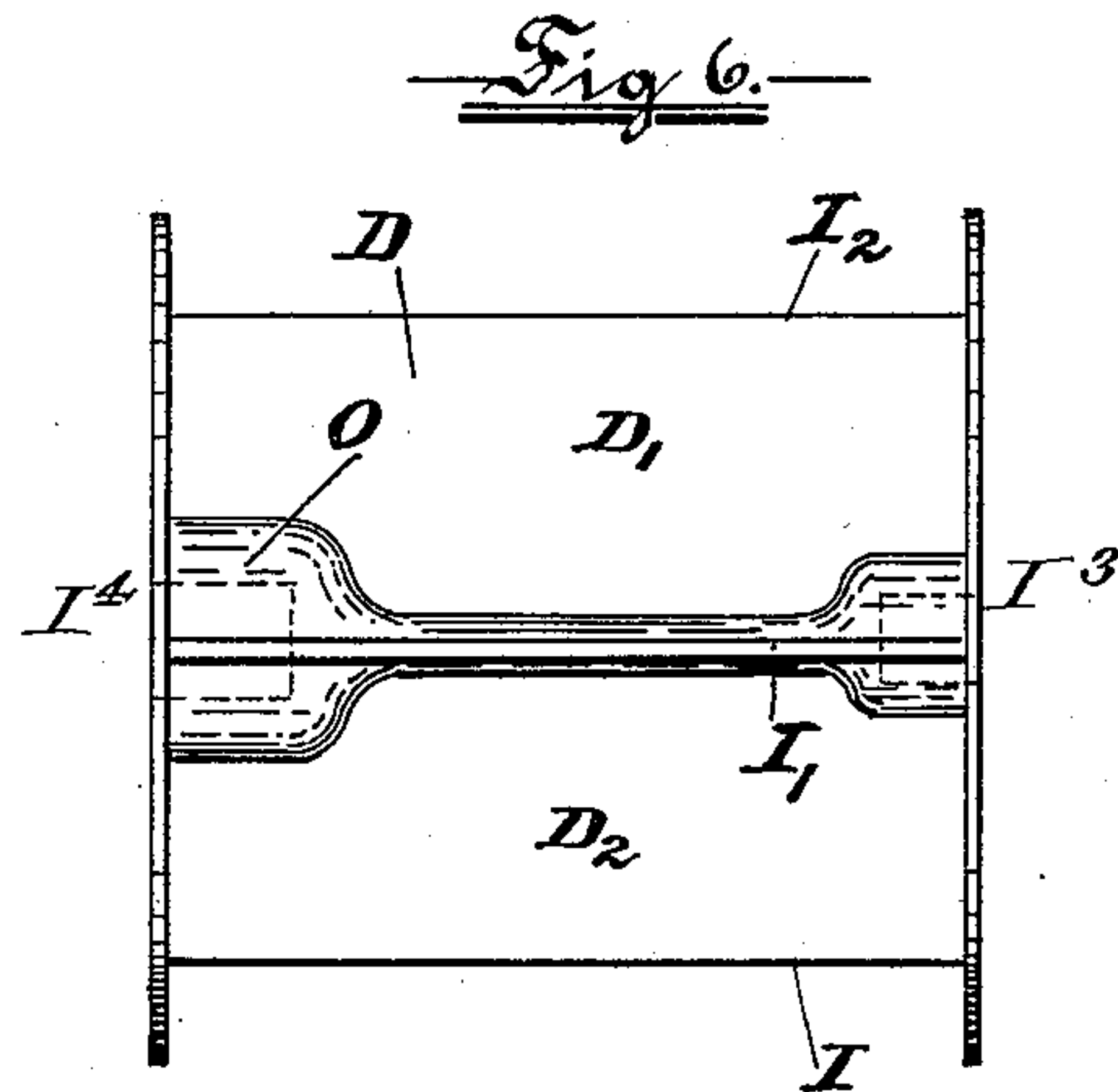
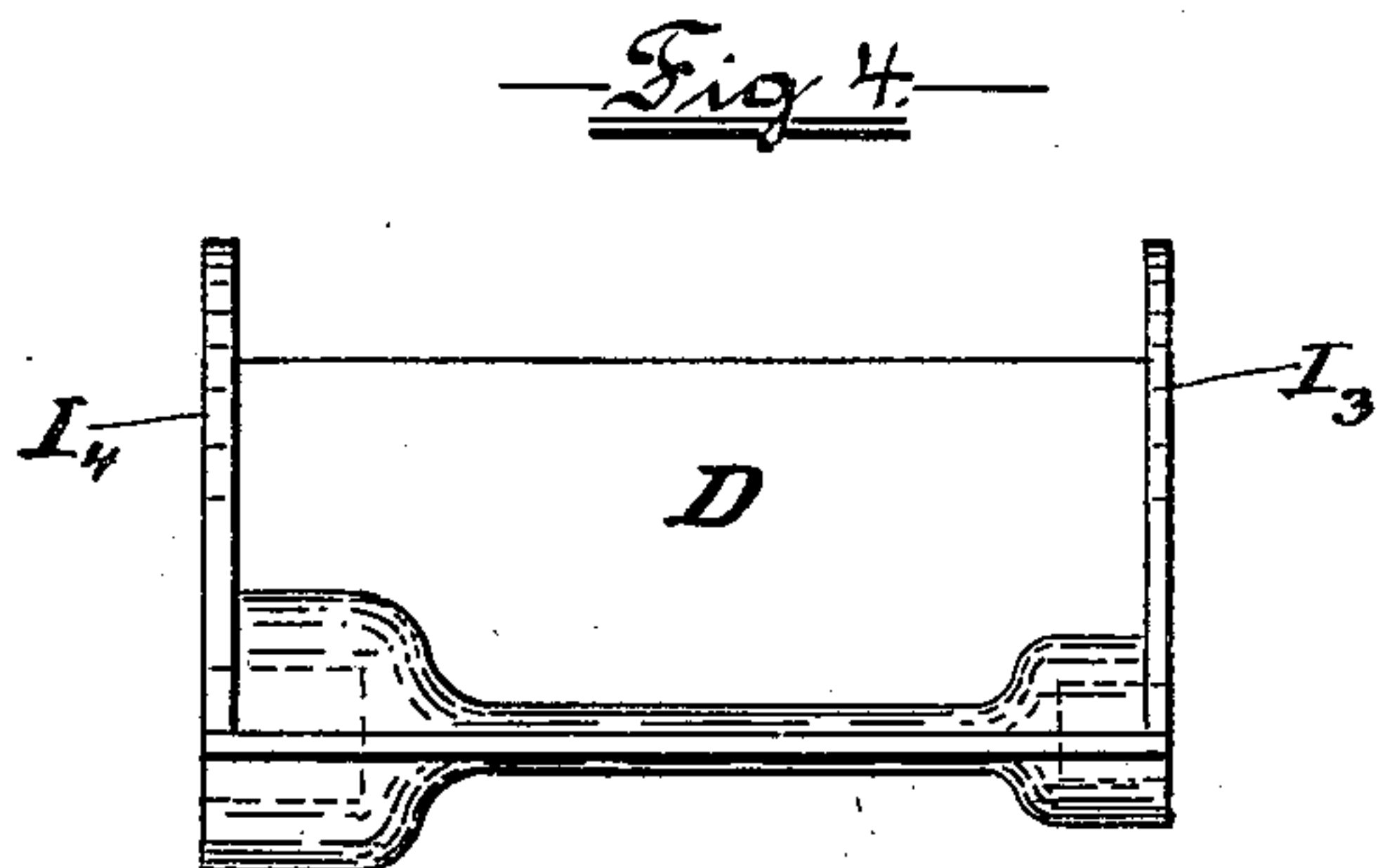
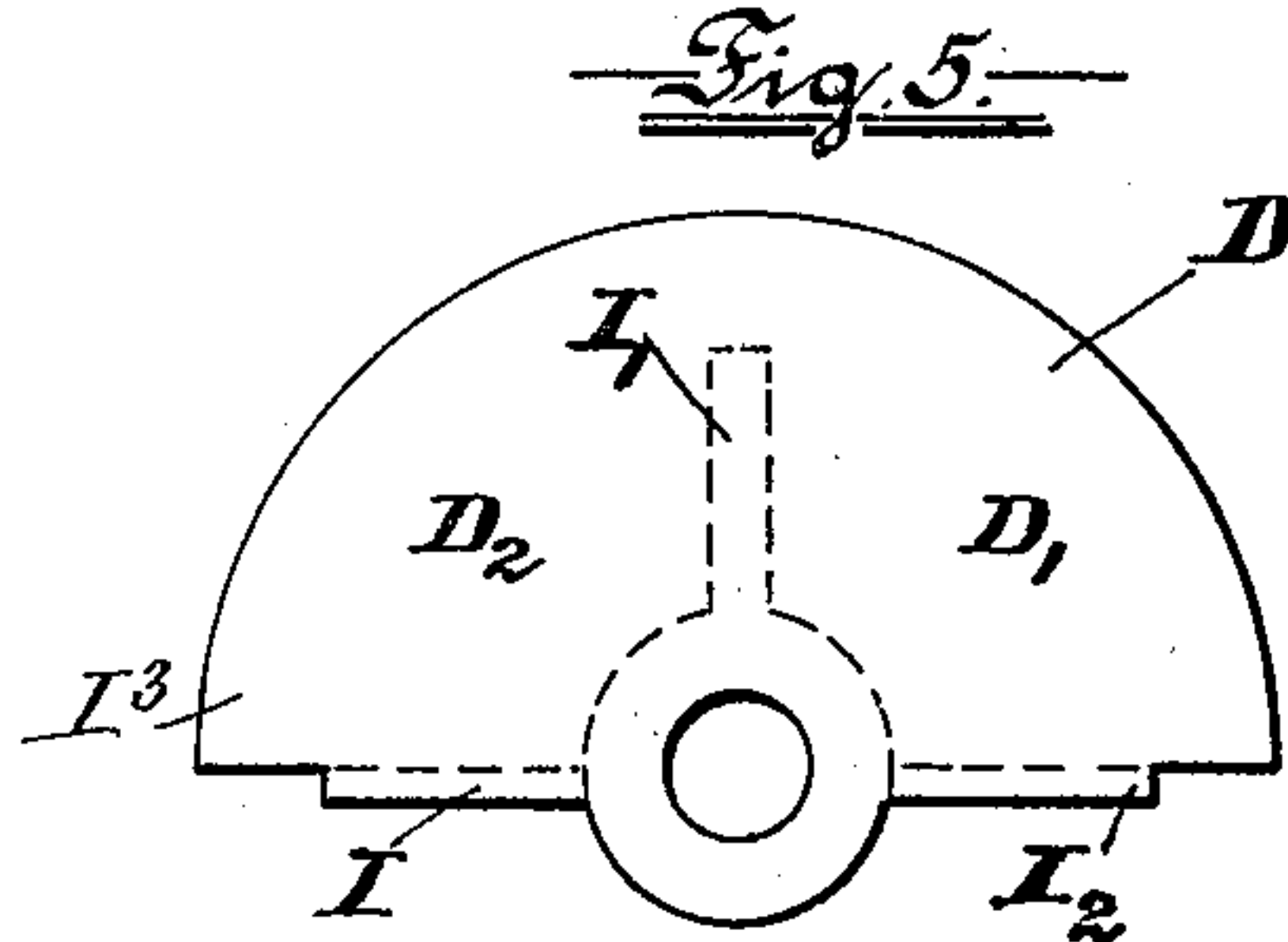
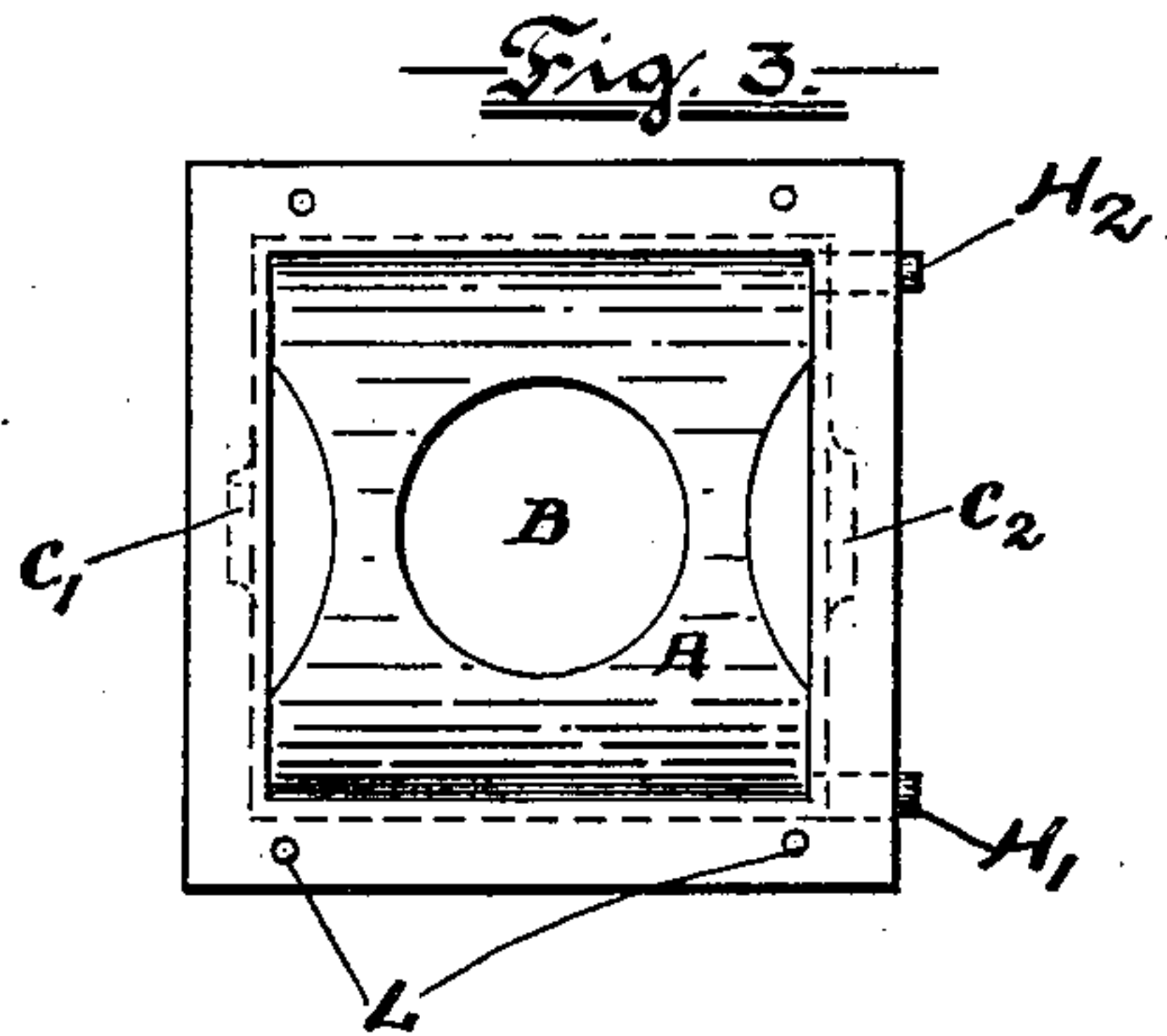
(No Model.)

2 Sheets—Sheet 2.

H. M. STILES.
SAND BOX FOR RAILROAD CARS.

No. 606,172.

Patented June 21, 1898.



Witnesses—
Charles W. Brower
Arcl. V. Deeken

Inventor—
Henry M. Stiles
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August M. Treschow

UNITED STATES PATENT OFFICE.

HENRY MERWIN STILES, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO HALSEY M. BARRETT, OF BLOOMFIELD, NEW JERSEY.

SAND-BOX FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 606,172, dated June 21, 1898.

Application filed September 15, 1897. Serial No. 651,718. (No model.)

To all whom it may concern:

Be it known that I, HENRY MERWIN STILES, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Sand-Boxes for Railroad-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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to sand-boxes for railway-cars, and its qualifications will be found to be simplicity in construction and consequent facility in substituting new parts for old parts worn out without rejecting the entire sand-box, as will be seen from the description later on, reduction of cost in manufacture, ease in manipulation, and various other qualities, which as the description proceeds will appear in due order of explanation.

The object of my invention will be seen to consist in furnishing railroad-cars with an improved sand-box which in addition to the above-stated merits possesses one great advantage over the hitherto-known style of boxes, and that is that on account of the peculiar combination of its structural elements and the special construction of the sand dumping and distributing compartment it is perfectly water-tight and on account of the close fitting of the main parts into each other it is prevented absolutely from becoming stopped up with frozen sand during the winter months, which renders any sand-box useless until repaired.

In describing my invention I shall call attention to the accompanying drawings, wherein, like letters of reference indicating corresponding parts in the different views—

Figure 1 shows a side view of my improved sand-box in half-size; Fig. 2, a sectional view through a center line $x x$ with the pins shown in full, as also the top part or funnel; Fig. 3, a top view of the main body of the box; Fig. 4, a side view of the distributing-compartment; Fig. 5, an end view of Fig. 4; Fig. 6, a top view of Fig. 4; Fig. 7, a side view of the

funnel fitting loose in the top part of the box proper as seen in Fig. 1; Fig. 8, a top view of Fig. 7; Fig. 9, a view of the pivot-nut supporting one end of the distributing-compartment.

In Fig. 1, A indicates the main body of my improved sand-box, having at the bottom a passage B, through which the sand passes to the rail. On either side are two hubs C' and C², in which hubs the distributing-compartment D is supported. It will be noticed that the surfaces leading down to the passage-way B are inclined circularly, as at A' and A², and slantingly, as at A³ and A⁴, in order to yield as little friction as possible to the downflowing sand. Secured to one side of this main body are two pins H' and H², limiting the throw administered to the distributing and dumping compartment. Secured by pivot E on one side and by pivot F on the other is a compartment D, having three sides I, I', and I², dividing it into two chambers D' and D², which chambers may be termed, respectively, the "receiving" and "distributing" chambers. The natural position of said compartment is such that with the oblique surfaces K' and K² and perpendicular surfaces K³ and K⁴ on the funnel K, that guides the sand into the compartment D, it forms a four-sided mouth or inlet, two oblique sides formed by, for instance, K' I' and K² I² lying in prolongation of each other, and two perpendicular sides K³ I³ and K⁴ I⁴, said perpendicular sides I³ and I⁴ being semicircular in shape, as seen in Fig. 5, and forming, with I, I', and I², the compartments D' and D².

The upper part or funnel K fits into the main body, as illustrated in Fig. 1, the holes L in funnel K and main part A covering each other, so that they are screwed down together in the floor of the car, the rim R fitting on the edges of a hole in the floor for such purpose made and provided.

A lever-arm M is firmly secured to a pin F, which being in its turn firmly fitted into the bush O of compartment D supports one end of said compartment, while the other end is pivoted by having the smooth end of the stud E fitted loosely in the bush P, which will permit a movement back and forth of lever-arm M between the pins H' and H², so regulated

that it will cause either of the chambers D' D² to fill the space underneath the funnel K, and after either chamber has delivered a chamber of sand on the rails one either acts
5 as a lock or, being filled again, will be ready to deliver another measure of sand when required.

It will readily be understood that if the lever-arm M should be moved slightly out of
10 the position shown in Fig. 1 a continuous stream of sand will be strewn on the rail and only cease when, as above described, the chamber performs its function as a lock for the sand-reservoir. The lever-arm M is by
15 simple mechanical devices attached to any kind of a lever arrangement that may be found practical and located within easy reach of the motorman and needs no description, as it forms no part of my invention.

20 Finally, various details of my invention may of course be altered; but

What I claim, and desire to secure protection for by Letters Patent of the United States, is—

25 In a sand-box of the character set forth, a

top part or funnel having four sides, suitably attached to the main body or shell, a sand receiving and distributing compartment having two chambers, whose sides lie in alignment with the four sides of the top part, a
30 main body or shell inclosing and supporting the receiving and distributing compartment, and having the funnel secured to its top, having two hubs, a screw-cut pivot having its screw-cut part fitting in the similarly screw-
35 cut aperture in one of the hubs aforesaid, a second pivot secured loose in the hub of the main body and attached to a hub on the receiving and distributing compartment, a lever-arm firmly secured to the pin, loosely piv-
40 oted in the hub of the main body, all for the purposes as set forth, substantially as illustrated and described.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of
45 September, 1897.

HENRY MERWIN STILES.

Witnesses:

EDWARD W. TRAWIN,
AUGUST M. TRESCHOW.