No. 855,302. PATENTED MAY 28, 1907.

W. R. GOIT.

DUMPING BODY.

APPLICATION FILED AUG. 21, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

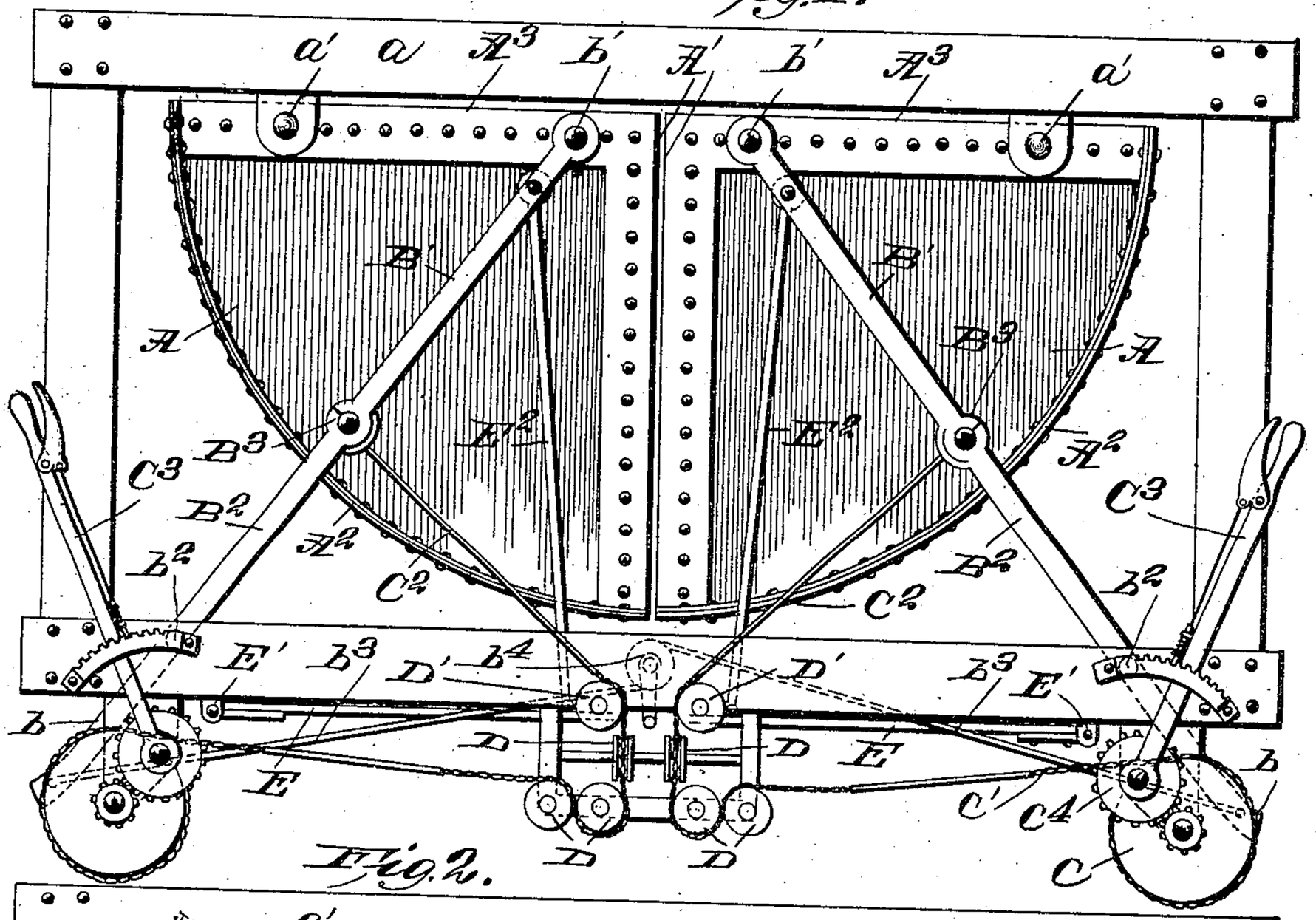
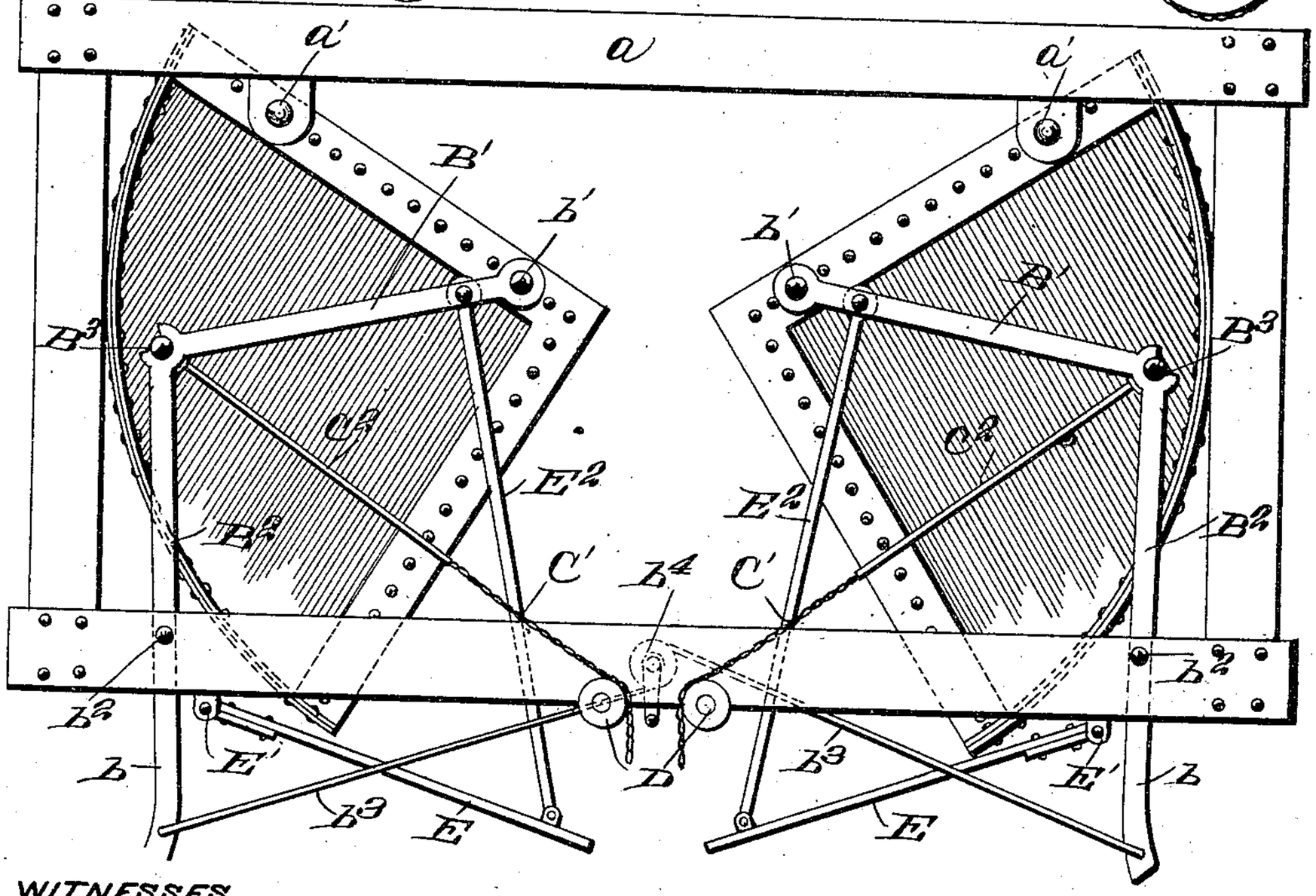


Fig. 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

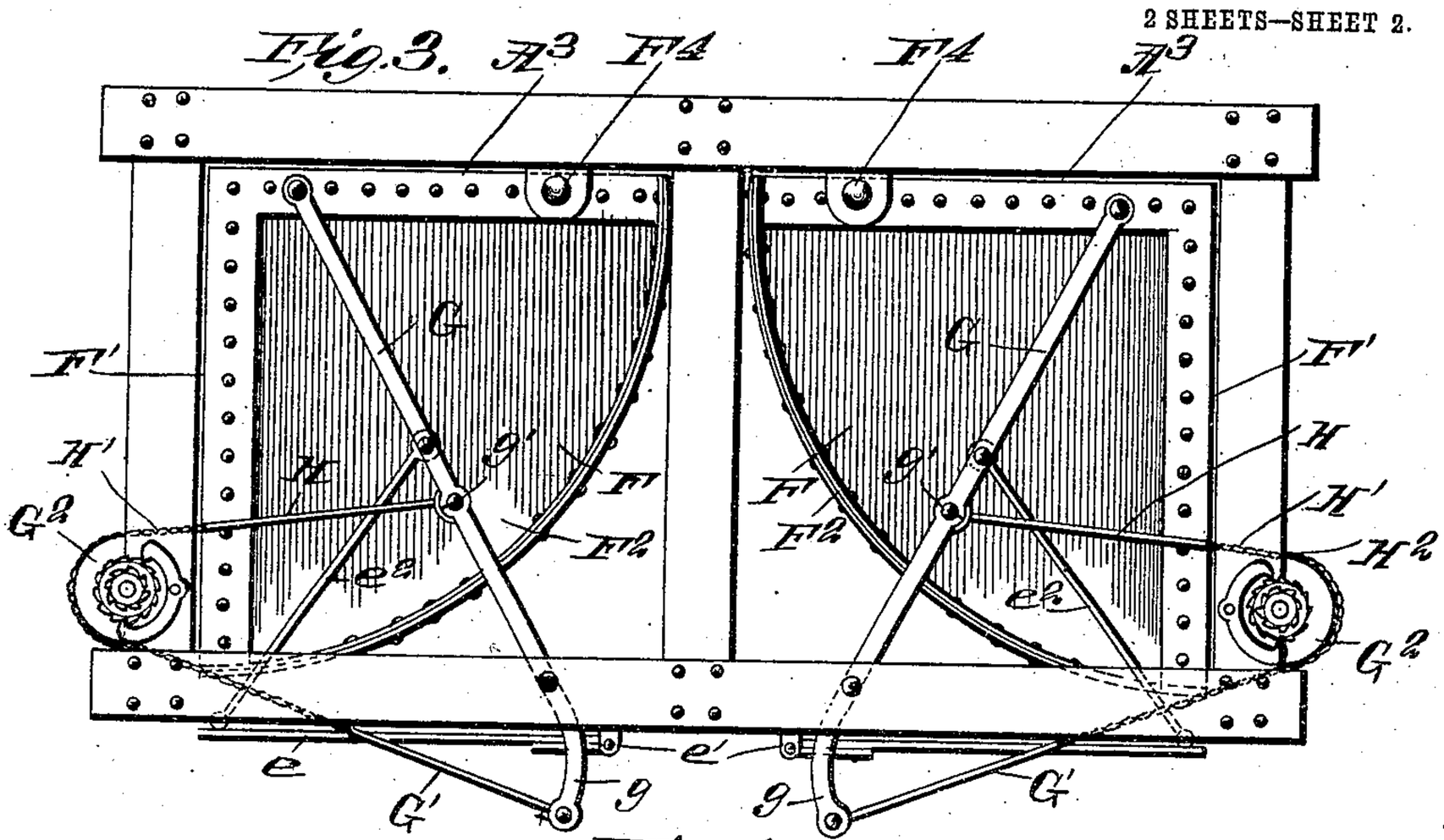
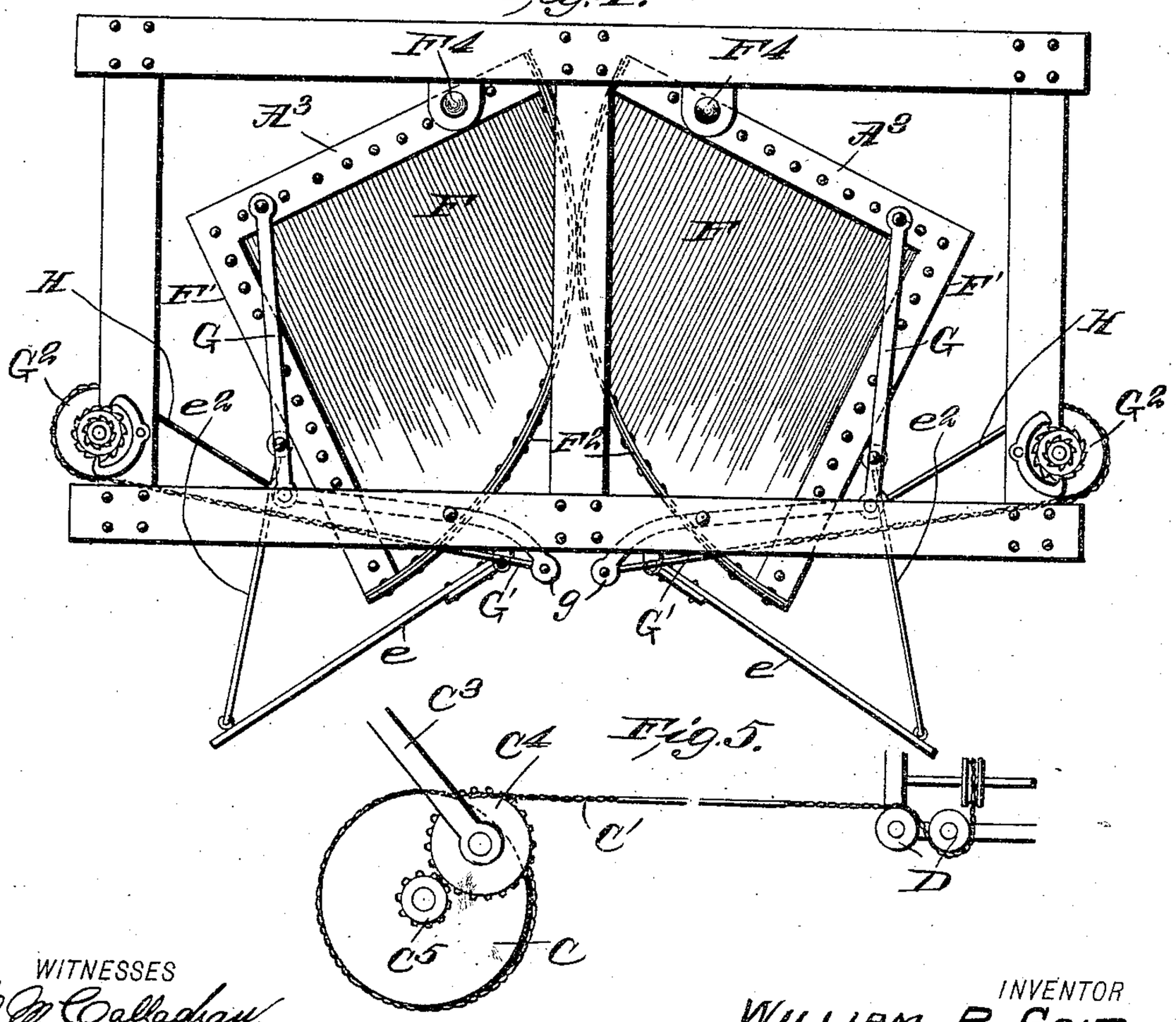


Fig. 4.



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DUMPING-BODY.

No. 855,302. Specification of Letters Patent. Patented May 28, 1907.

Application filed August 21, 1906. Serial No. 331,489.

To all whom it may concern:

Be it known that I, WILLIAM R. GOIT, a citizen of the United States, and a resident of Oklahoma city, Oklahoma county, Oklahoma Territory, have made certain new and useful Improvements in Dumping-Bodies, of which the following is a specification.

My invention is an improvement in dumping bodies such for instance as are in use on dumping wagons, dumping cars and bins, and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings—Figure 1 is an end elevation of a dumping body in position to receive the load. Fig. 2 is a similar view showing the parts dumped. Fig. 3 is an end view of a somewhat different construction of dumping body ready to receive the load, and Fig. 4 shows a dumping body illustrated in Fig. 3 with the parts in dumped position, and Fig. 5 is a detail view illustrating the means for readjusting the body to position to receive the load after it has been dumped and for holding it in such position.

In Figs. 1 and 2 I show the construction of body which may be preferred in dumping cars or wagons, while in Figs. 3 and 4 I show that which may be preferred for cars or bins and it should be understood that I do not desire to be limited in the broad features of my invention to any particular use of the dumping section or sections.

Referring to Figs. 1 and 2, the body comprises two symmetrical sections A in the form of quarter-cylinders or other form, having upright abutting edges A′ and bottoms A^2 curved on the arc of a circle to which the upright abutting edges A′ are radial and also provided with radial top edges A^3, the said sections being mounted in a suitable frame *a* and pivoted at *a′* near their upper outer edges whereby when the loaded sections are released they will dump their contents by gravity swinging by their own weight and the weight of their contents on the pivots *a′* from the position shown in Fig. 1 to that shown in Fig. 2. Manifestly the frame *a* may be of any suitable design and construction to suit the particular purpose for which the dumping body is intended and it will be understood that in practice the dumping sections which may be of iron or steel, may be mounted in a steel frame adapted for use on either wagons, cars or bins as may be desired. In the construction shown in Fig. 1, the opposite sections A co-operate, each forming a closure for the open side of the other section.

For maintaining the dumping sections A in position for use as shown in Fig. 1, I may employ the props B composed of sections B′ and B^2 rule-jointed, or otherwise, at their meeting ends at B^3 and pivoted respectively at *b′* to the body sections and at b^2 to the frame *a*, and the sections b^2 may when desired be extended at *b* as shown in Fig. 1 so they may be utilized as lever extensions for breaking the joints B^3 when it is desired to dump the load and this breaking may be forcibly accomplished by chains or other connections b^3 leading from the lever extensions *b* to a suitable drum b^4 which may be forcibly operated by any suitable form of lever device as will be understood from Fig. 1 of the drawings.

For readjusting the body sections A I employ a suitable power device which may be as shown in Fig. 5 and comprise a drum C receiving a chain C′ connected by a rod C^2 with the jointed prop adjacent to its joint B^3 as will be understood from Figs. 1 and 5, the chain C′ being directed over guide pulleys D and D′ to the drum C and the latter being driven by means of a lever C^3 fixed to a gear C^4 meshing with a pinion C^5 on the drum C so the latter may be operated, or manifestly other suitable means for operating the drum C may be employed whenever desired, such as air, or steam or gears. By this means the props may be readjusted from the position shown in Fig. 2 to that shown in Fig. 1 and when so readjusted the lever C^3 may be secured to lock the props in locked position by any suitable means. This may consist in a pawl and rack as shown in Fig. 1, or other suitable well known fastening means.

In the operation of this construction it will be noticed that by releasing the props and operating the same through the drum b^4 and connection b^3, the body sections will be given their initial opening movement and will then readily dump by gravity. At the same time the props will operate to hold the body sections securely in position for use until it is desired to dump.

It will be understood that separate operating devices, such as shown in Fig. 5, will be provided for each body section, so that the

latter may be dumped independently or simultaneously as desired.

An apron E may be employed in connection with each of the dumping sections. This apron E is shown in Fig. 1 as pivoted at E′ to the frame and projects beneath its respective dumping section and terminates at its free edge approximately below the free edge of its respective dumping section and is connected by a link E^2 with one of the sections of its prop B, so that as the prop swings between the positions shown in Figs. 1 and 2 it will operate to lower the apron so that the latter will form an extension for directing the material discharged from its respective section A. This apron will be found useful in directing the material to any desired position and manifestly aprons of different sizes may be used and may be interchanged as may be desired from time to time.

Referring now to the construction shown in Figs. 3 and 4 it will be noticed that in this construction the body sections F are constructed like the sections A before described, having the upright radial edges F′, curved bottoms F^2 and radial top edges A^3 and are pivoted at F^4 adjacent to the upper edge of their curved bottoms so they will dump by gravity. These sections, however, instead of having their upright edges F′ abutting as is the case in the construction shown in Fig. 1, are reversed and their said edges F′ abut on upright side of the frame, being closed by the latter when the sections F are in the position shown in Fig. 3. At the same time the said sections may be adjusted on their pivots F to the position shown in Fig. 4 to dump their contents. These sections F are sustained in the position shown in Fig. 3 by their respective props G, which latter may be released or broken by draft upon the connections G′ leading from their lever extensions *g* to a suitable drum G^2 and these props may be readjusted by the rods H and chains H′ connecting the joints *g′* of their props G with suitable operating devices at H^2, which operating devices may be as shown or may be substantially like those shown in Fig. 5 of the drawings, or by air, steam, or gears. In the construction shown in Figs. 3 and 4 I provide aprons *e* corresponding to the aprons E before described in connection with the construction shown in Fig. 1, the said aprons *e* being pivoted at *e′* and connected with links e^2 with their respective props as shown in Figs. 3 and 4.

In the operation of my invention shown in Fig. 1, it is manifest the dumping of the body sections may be so regulated as to distribute the load to the center, to the outside or evenly between the two as may be desired. It will be also understood that I do not desire to be limited in the broad features of my invention to the sepcific features for readjusting the sections to position to receive the load or to the particular means for breaking the props when it is desired to dump.

Compressed air or steam may be adopted in lieu of the levers, etc. as shown, to release the dumping devices.

I claim—

1. A dumping body composed of two symmetrical sections in the form of quarter cylinders having each an upright edge and a bottom curved on the arc of a circle to which the upright edge is radial and each of said sections being pivoted near its upper outer edge whereby when the loaded sections are released they will dump their contents by gravity, props consisting of sections jointed together and adapted to hold their respective sections in position to carry the load, and pivoted aprons extending beneath their respective body sections and means connecting the said aprons with the props of their respective body sections, all substantially as and for the purpose set forth.

2. In a dumping body, a section in the form of a quarter-cylinder having a bottom curved approximately on the arc of a circle and pivoted adjacent to the upper edge of said bottom, a frame in which said section is pivoted, a prop consisting of jointed sections pivoted respectively to the frame and the body section, an apron pivoted to the frame and extending at its free edge below the dumping edge of the section and means connecting said apron with a jointed prop for said section, substantially as set forth.

3. A dumping body having opposite pivoted sections opening toward each other at their adjacent sides and having their bottoms curving downward to such open sides and adapted to operate by gravity to discharge its load, and means for holding the sections in position to retain the load.

4. The combination with a suitable frame, of a dumping section pivoted therein and having a curved bottom or other form and adapted to discharge its contents by gravity, a prop consisting of sections pivoted respectively to dumping sections and to the frame and devices connected with said prop whereby to break the same for dumping the section, and for readjusting the prop to return the dumping section to position to receive its load, substantially as set forth.

5. In a dumping body, a section pivoted adjacent to its upper edge whereby it will dump by gravity, a prop for maintaining said section in position to support its load, a pivoted apron below the said section and means connecting the pivoted apron with the prop whereby it may be operated by the movement thereof, substantially as set forth.

6. The combination of a frame, a dumping section pivoted thereto, an apron pivoted to the frame, and intermediate devices between the apron and the dumping section.

7. The combination with the frame and

the dumping section pivoted therein, of a prop for holding the said section in position to receive its load, said prop consisting of sections pivoted respectively to the dumping section and to the frame, the latter section being extended beyond its pivot forming a lever extension whereby to operate the prop, substantially as set forth.

8. A dumping section pivoted near its upper outer edge open at one side and having a bottom curving down to the lower edge of said open side, means opposite said open side to retain the load in said section, and means for holding the section in position to retain the load.

9. The combination of a dumping section pivoted to dump by gravity, means for maintaining said section in position to support its load, a pivoted apron below the said section, and means whereby the apron may be operated with the operation of the dumping section.

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Witnesses:
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PAUL R. KIRTLEY.