No. 749,038. PATENTED JAN. 5, 1904.

J. M. DODGE.

PAN CONVEYER.

APPLICATION FILED SEPT. 22, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

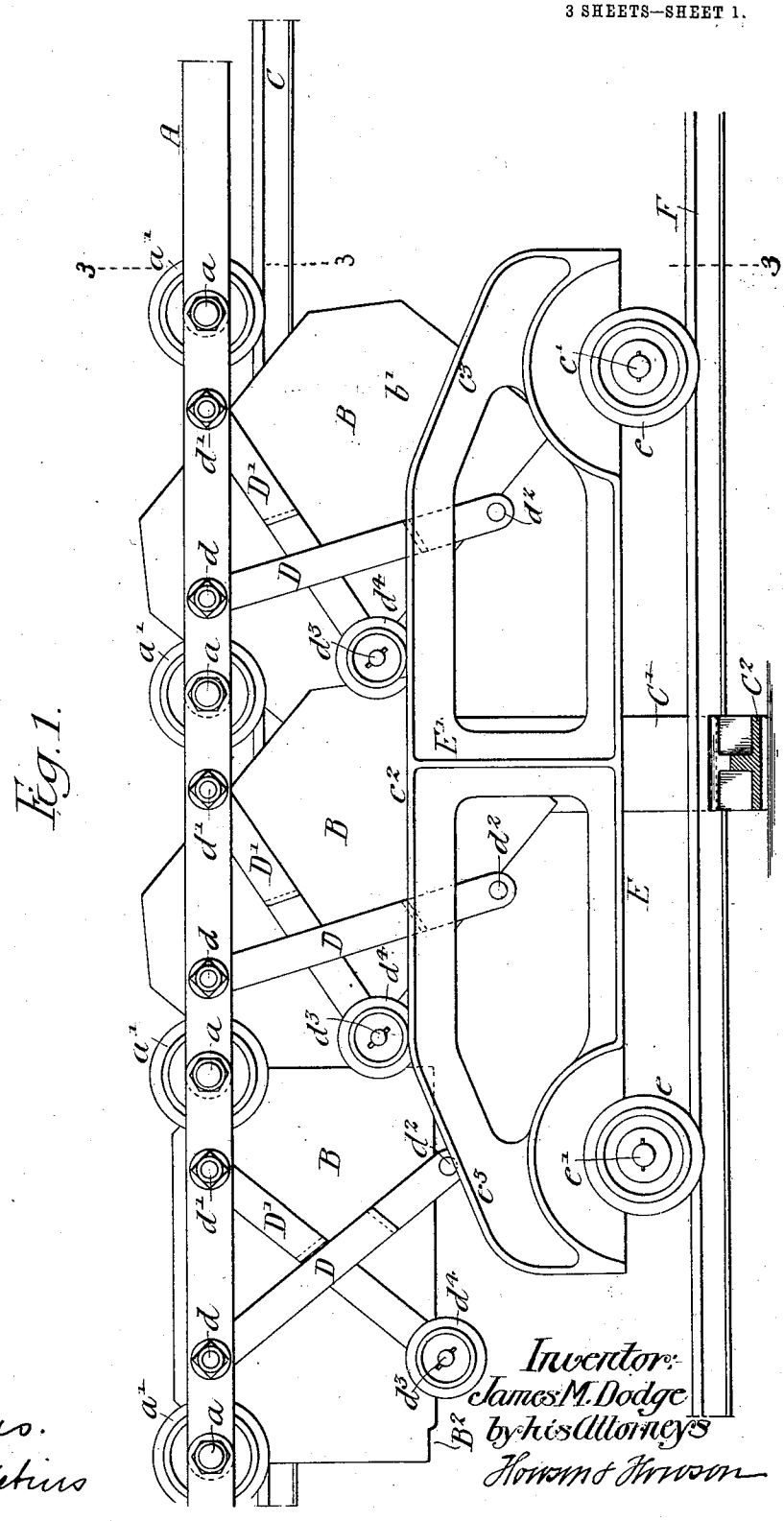



Fig. 1.

Witnesses:-
Titus H. Sosa.
Herman E. Metius

Inventor:
James M. Dodge
by his Attorneys
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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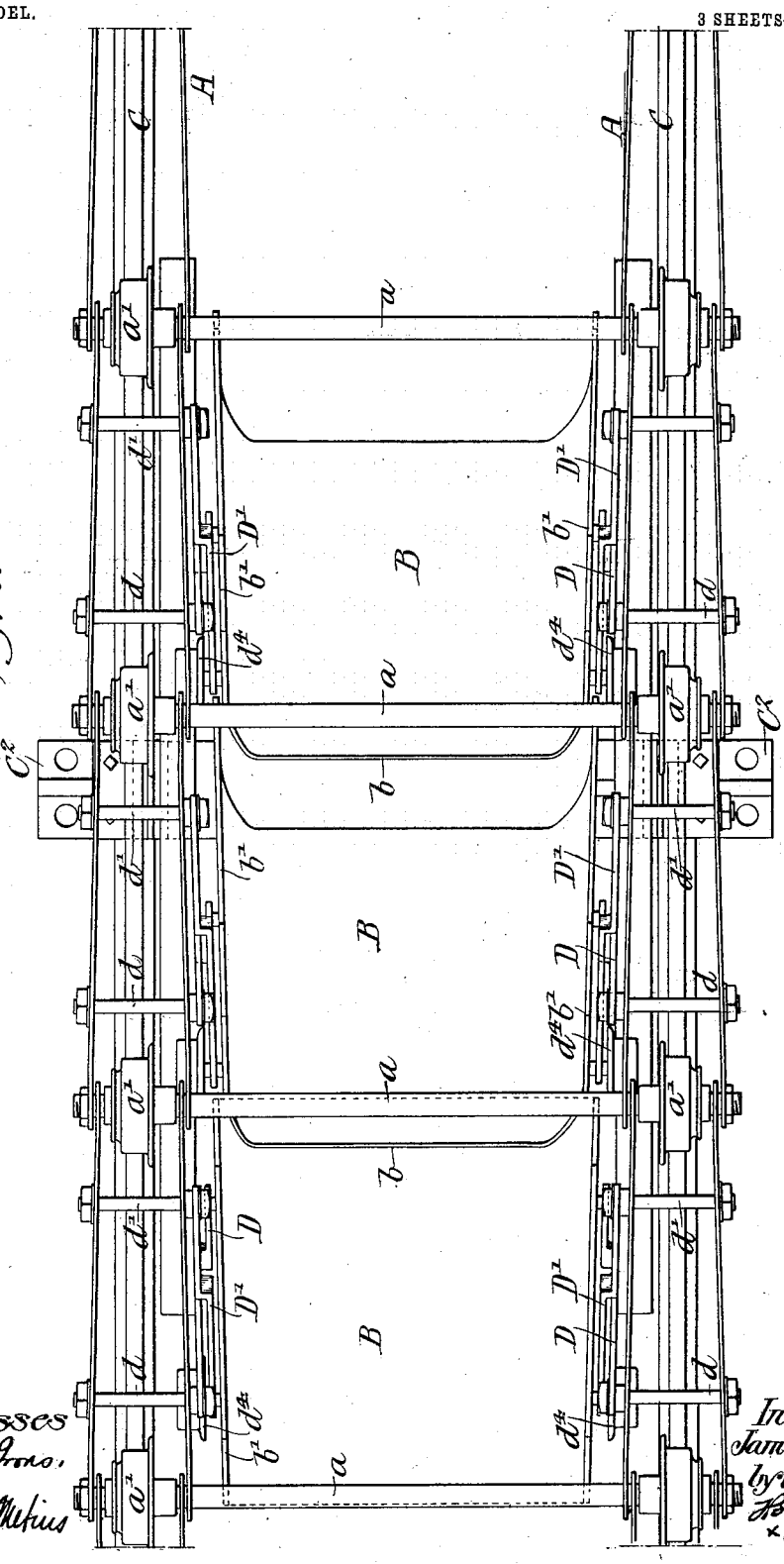
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APPLICATION FILED SEPT. 22, 1903.

NO MODEL. 3 SHEETS—SHEET 2.

Fig. 2.




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NO MODEL. 3 SHEETS—SHEET 3.

Fig. 3.

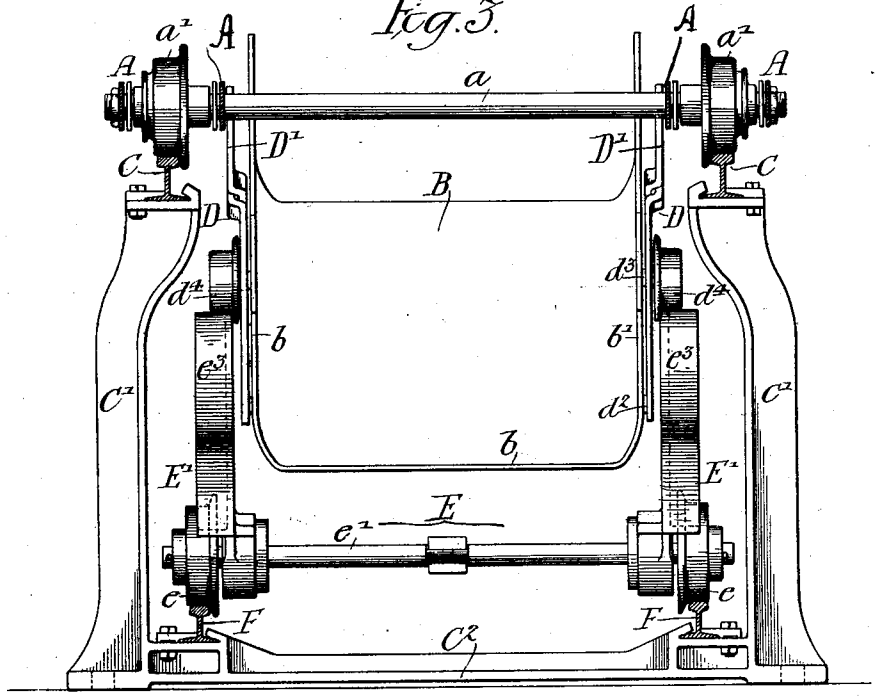
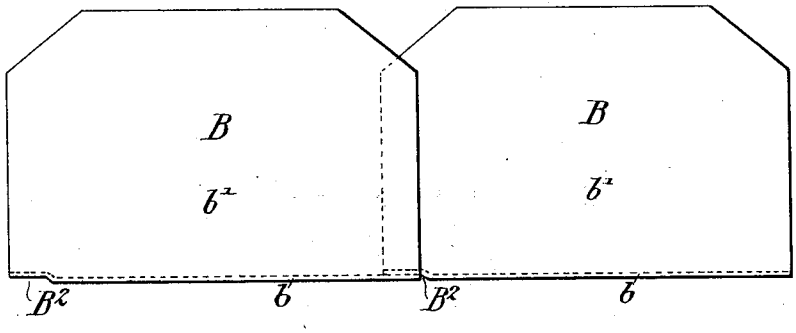



Fig. 4.



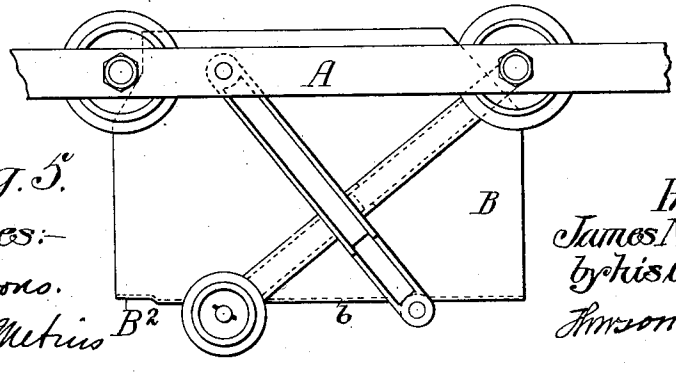




Fig. 5.

Witnesses:-
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No. 749,038. Patented January 5, 1904.

# UNITED STATES PATENT OFFICE.

JAMES M. DODGE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE LINK BELT ENGINEERING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

## PAN CONVEYER.

SPECIFICATION forming part of Letters Patent No. 749,038, dated January 5, 1904.

Application filed September 22, 1903. Serial No. 174,178. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. DODGE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Pan Conveyers, of which the following is a specification.

The object of my invention is to so construct a pan conveyer that the material carried by the conveyer can be discharged at any point. This object I attain by making the pan conveyer in sections, the sections being so hung to the conveyer-chain that when they come in contact with the discharge device the pans will swing and discharge the load. The discharge device in the present instance is adjustable, so that it can be shifted to discharge the load at any point desired.

In the accompanying drawings, Figure 1 is a side view of my improved sectional pan conveyer. Fig. 2 is a plan view. Fig. 3 is a transverse section on the line 3 3, Fig. 1. Fig. 4 is a side view showing the overlapping pans, and Fig. 5 is a view of a modification.

A A are two endless chains connected together by axles *a*. Mounted on these axles are carrying-wheels *a'*, which travel on rails C C. These rails are supported in the present instance on suitable standards C', forming part of or secured to the base $C^2$.

B B are the sections of the pan conveyer, having a bottom portion *b* and sides *b'*. In the present instance the sections are open at each end, so that when they are assembled they form a continuous trough, into which the material can be discharged from any suitable discharge-spout. The sections B are hung from the chains A A by two sets of arms at each side. The arms D of each set cross the arms D', the arm D being attached to the chain at *d* and connected to the forward end of the section at $d^2$, while the arm D' is pivoted at *d'* to the chain and to a pivot $d^3$ near the rear end of the section. On this pivot is a wheel $d^4$, which strikes against the discharge device when it is wished to tip the sections, as shown in Fig. 1.

Mounted on rails F F, secured to the base $C^2$, are wheels *e e*, which are carried by axles *e'*, mounted on the discharge-carriage E, which has two side frames E' E', extending up on each side of the conveyer, as shown, and the upper edge of each frame E' forms a rail $e^2$, which is in the path of the wheels $d^4$ of the sections of the conveyer.

Each end of the discharge device is inclined at $e^3$, so that the wheels $d^4$ will first strike the incline and gradually travel up the incline to the flat portion, tilting the section and holding it in the discharge position until the wheel reaches the opposite end of the discharge device. The flat portion $e^2$ can be of any length desired. As soon as the section passes the discharge device it will immediately right itself in position to receive another load.

I preferably offset the rear portion of the bottom of each section, as indicated at $B^2$, so that it will lap over the adjoining section. In some instances the sections may simply have a butt-joint instead of a lap-joint, and the sections may have a back forming independent buckets.

Instead of pivoting the links D D' on the chain at the points indicated in Fig. 1 one of the links may be pivoted to one of the axles, as shown in Fig. 5.

I claim as my invention—

1. The combination of two endless chains connected together, pan-sections mounted between the chains, one section overlapping another, and two links on each side of each pan-section by which the said sections are suspended from the chains, said links being so arranged that each section can be tilted to discharge its load, substantially as described.

2. The combination in a pan conveyer, of an endless chain, pan-sections, and cross-links by which the sections are suspended from the chain, substantially as described.

3. The combination in a pan conveyer, of two chains connected together, pan-sections between the chains, each section having a bottom and sides, and cross-links pivoted to the chain and to the sections of the pan, substantially as described.

4. The combination of a chain at each side of the conveyer, cross-shafts connecting the chains, wheels carried by the cross-shafts,

rails on which the wheels travel, pan-sections, and cross-links pivoted to the chains and pivoted to the pan-sections, substantially as described.

5. The combination of the two chains connected together, pan-sections mounted between the chains, cross-links connecting the pan-sections to the chains, one pan-section overlapping the other so as to form a continuous pan, substantially as described.

6. The combination of the chain, pan-sections, cross-links connecting the pan-sections to the chain, with a discharge device so arranged that each individual section will strike the discharge device and will tip and discharge its load, substantially as described.

7. The combination of the chains, pan-sections, cross-links connecting the pan-sections to the chains, a wheel on each pan-section, with a discharge device having a portion on which the wheel will ride so as to tip the section and discharge its load, substantially as described.

8. The combination of a chain, a series of pan-sections, cross-links by which the pan-sections are suspended from the chain, a discharge-carriage mounted on tracks and having two side members extending into the path of the pan of the conveyer, so that when the pans strike the discharge device they will tip and discharge the load, substantially as described.

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

JAMES M. DODGE.

Witnesses:
WILL. A. BARR,
JOS. H. KLEIN.