

F. HERBERT.
BOGIE OR TRUCK FOR PIPE FOUNDRY PLANTS.
APPLICATION FILED DEC. 7, 1908.

966,546.

Patented Aug. 9, 1910.

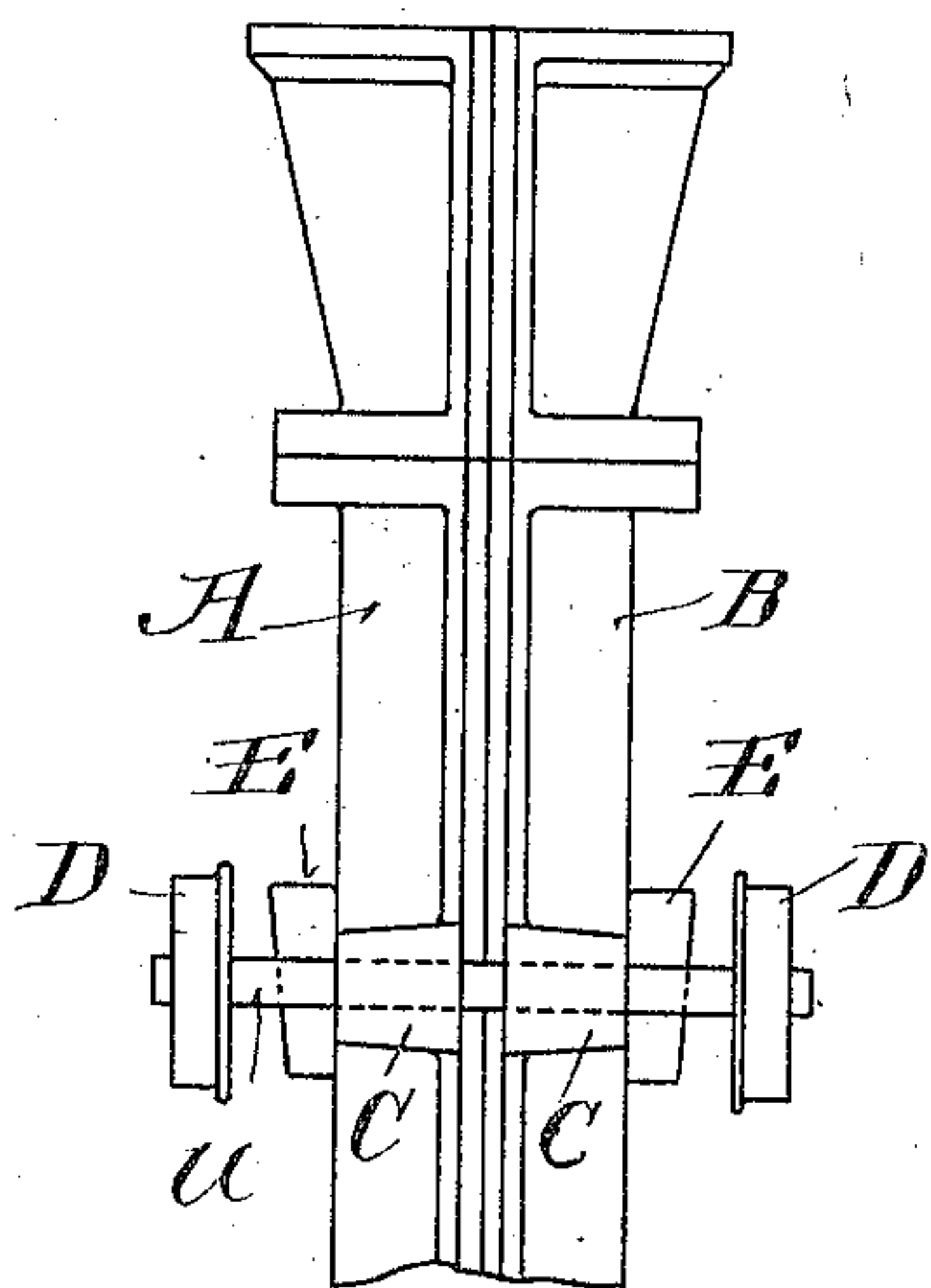


Fig. 1

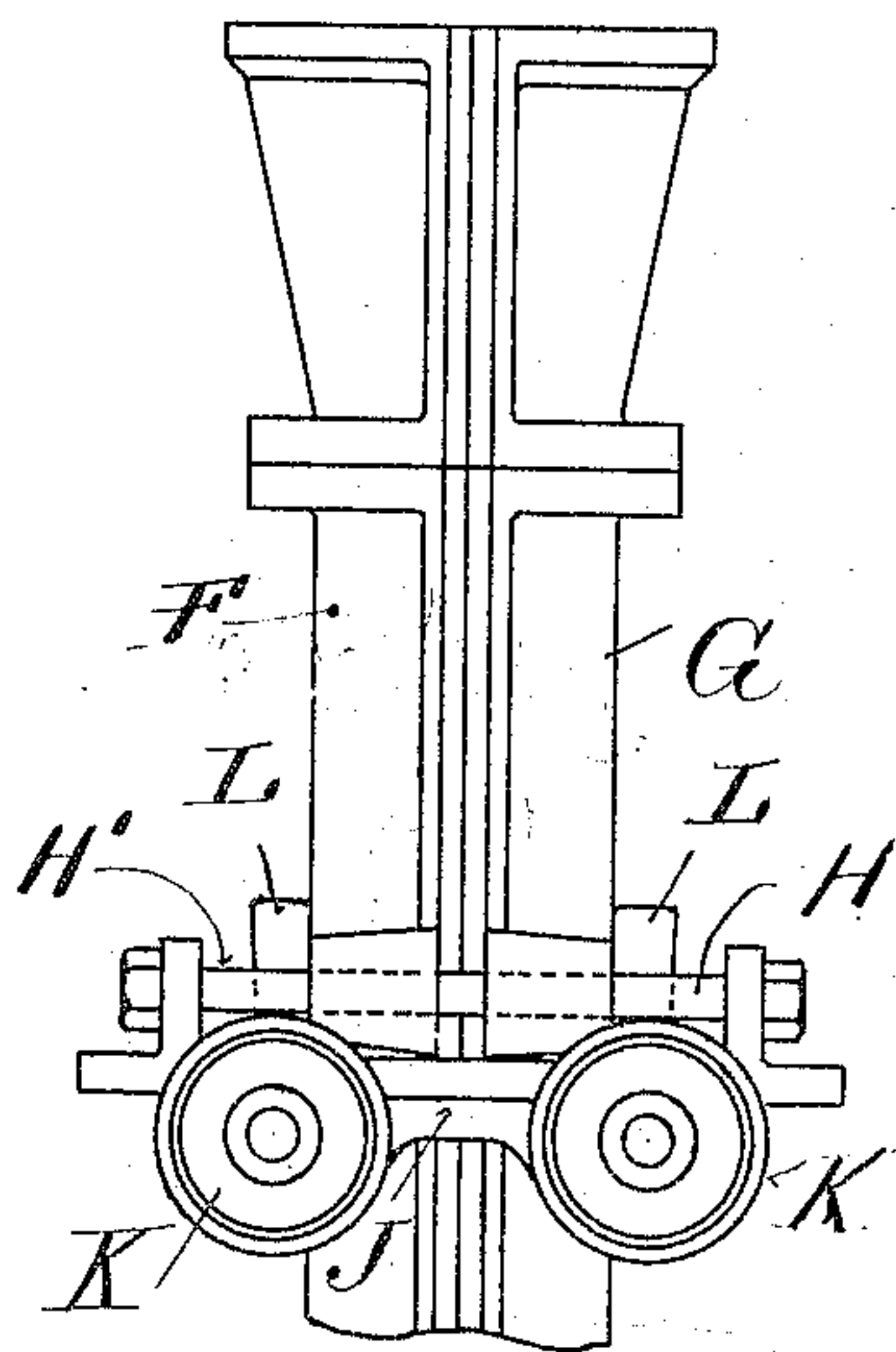


Fig. 2

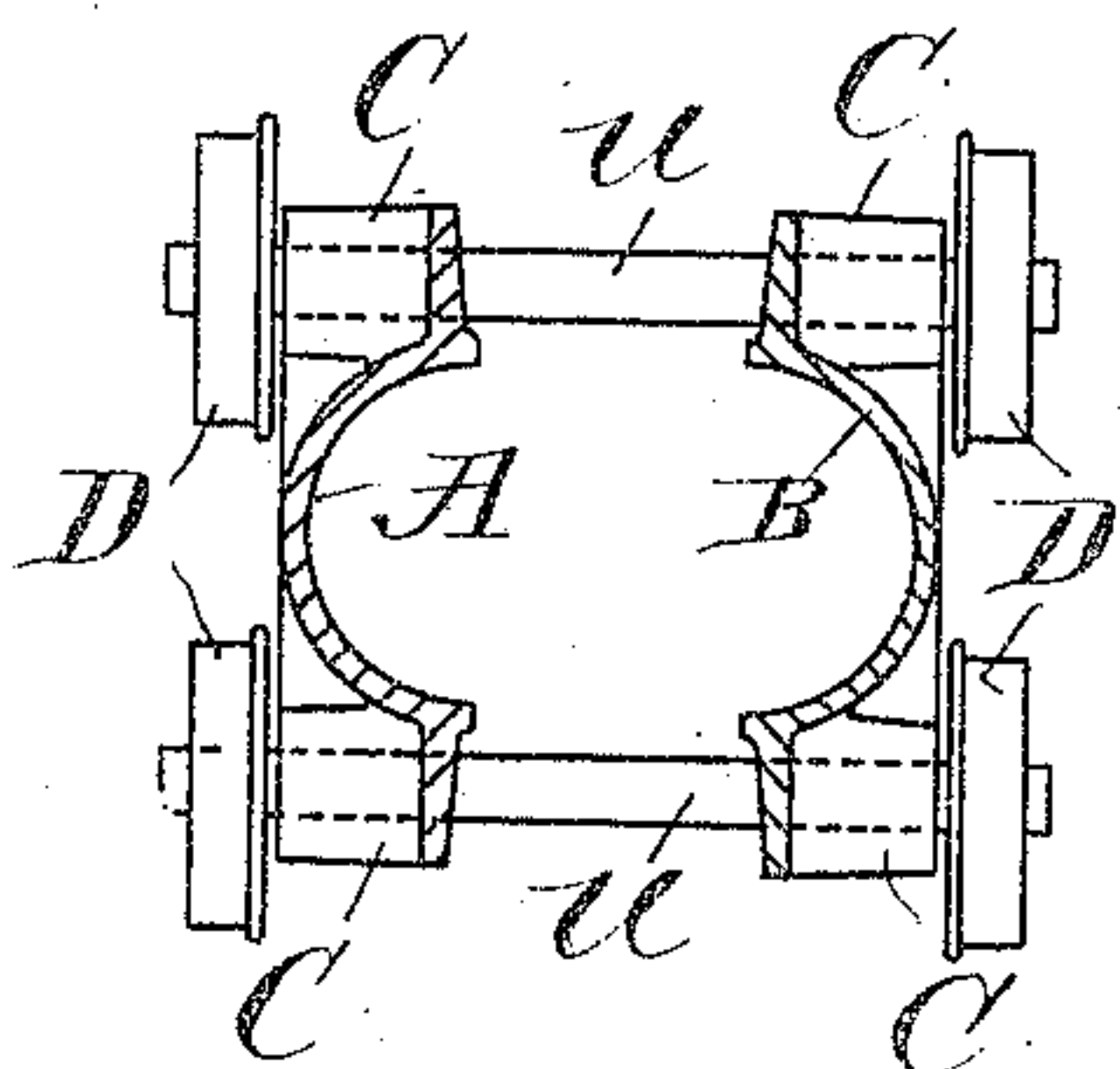


Fig. 3

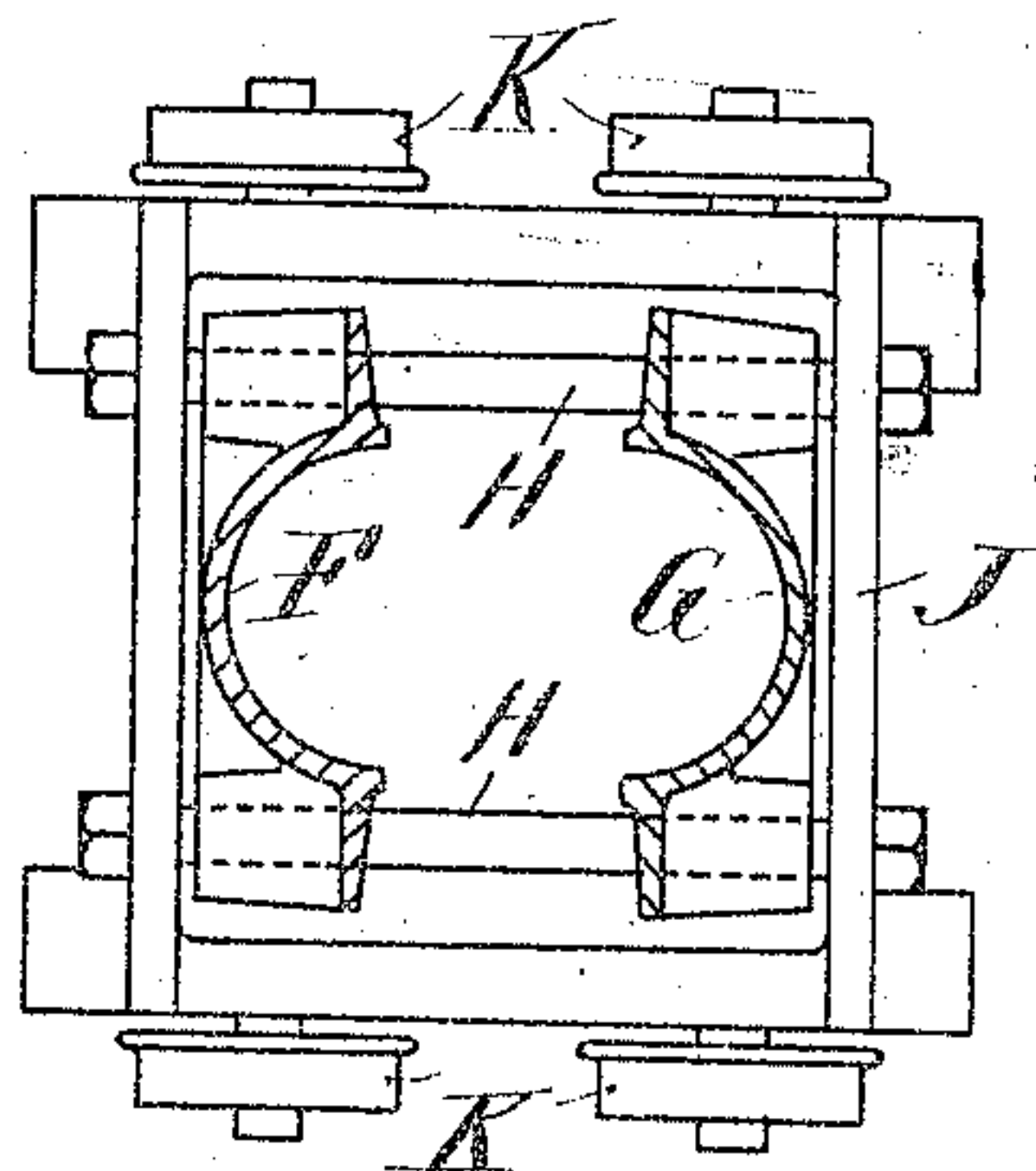


Fig. 4

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UNITED STATES PATENT OFFICE.

FRED HERBERT, OF BIRTLEY, ENGLAND.

BOGIE OR TRUCK FOR PIPE-FOUNDRY PLANTS.

966,546.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed December 7, 1908. Serial No. 466,201.

To all whom it may concern:

Be it known that I, FRED HERBERT, a subject of the King of Great Britain, residing at Mosely House, Birtley, in the county of Durham, England, have made a certain new and useful Invention in Bogies or Trucks for Pipe-Foundry Plants, of which the following is a specification.

This invention relates to bogies or trucks for foundry plants, and particularly for foundry plants for the molding and casting of pipes.

The object of the invention is to provide a simple and efficient arrangement of bogie or truck for pipe foundry plants adapted to facilitate the various operations necessary in the manufacture and handling of the pipe product to be produced.

Other objects of the invention will appear more fully hereinafter.

The invention consists substantially in the construction, combination, location and relative arrangement of parts, all as will be more fully hereinafter set forth, as shown in the accompanying drawings and finally pointed out in the appended claims.

Referring to the accompanying drawings, and to the various views and reference signs appearing thereon,—Figure 1 is a detached detail view in side elevation partly broken off of a pipe box and its supporting bogie and embodying the principles of my invention. Fig. 2 is a transverse section of the same. Fig. 3 is a view similar to Fig. 1 showing another construction of bogie embraced within the scope of my invention. Fig. 4 is a transverse section of the construction shown in Fig. 3.

The same part is designated by the same reference sign wherever it occurs throughout the several views.

In the practical operation of pipe foundries much time and labor are required in the proper handling of the molds and other parts of the apparatus required in the manufacture of pipes. The apparatus employed is usually heavy and where several successive stages or operations are required, as for instance, the forming of the mold, drying it, the introduction of molten metal to the flask or molding box, the removal of the cast pipe, and other operations incident to the manufacture of cast iron pipes, it is a serious problem to effect the shifting of the flask carrying the mold to the various points where the various operations are carried out,

especially where care must be observed in preventing injury to the mold before the pipe is cast, and these difficulties involve not only loss of time and the use of heavy expensive shifting cranes and other machinery, but also greatly reduce the daily capacity and output of the plant.

It is among the special purposes of my present invention to provide a bogie or truck having such construction and arrangement as to greatly facilitate the manufacture of pipes by rendering the handling and shifting of the flasks or molding boxes from point to point where required easy and rapid and without the necessity for the use of cranes, for effecting the shifting operation.

In carrying out my invention I mount the flasks or boxes in which the molds are formed and the castings are made, on wheeled supports or bogies, designed to operate on suitably arranged track rails, the bogies being so constructed and arranged as to form a movable support for the flasks or mold box, the latter being supported by such bogies in vertical position and depending below the level of the track rails on which the wheels of the bogie operate. In practice, and preferably, the pipe boxes are made in sections and the sections are mounted upon the bogies or the axles thereof for movement toward and away from each other whereby they may be closed as required to receive the mold material and the molten metal, or opened to permit the removal of the finished pipe. The track rails on which the bogies operate may have any suitable arrangement and may be supported in any suitable manner.

In Figs. 1 and 2, I have shown one form of box and its supporting bogie wherein the box is made in sections A, B, capable of movement toward and from each other upon the bogie on which they are supported and suspended, to open and close the box. In this form each box section is provided with the sleeves C, on opposite sides thereof, fitted to slide upon the axles *a*, of the bogie, the bogie wheels D, being mounted on the ends of said axles. If desired the axles may be slotted to receive the cotter wedges E, by means of which the box sections are clamped together and fastened. By removing these cotter wedges the box sections may be separated to open the box. In Figs. 3 and 4, I have shown another size and style of pipe

box and supporting bogie therefor, this being specially designed for heavier and larger sizes of boxes. In this construction the box sections F, G, are supported upon rods H, carried in a frame J, supported upon the wheels K. The rods H may be slotted to receive the cotter wedges L, to clamp and lock the box sections together. By removing the cotter wedge E, in the one case, and L, in the other, the sections of the boxes may be moved from each other to open the boxes and permit the removal of the contents thereof. In the construction shown in Figs. 3 and 4, the rods H, which support the box sections are arranged at right angles to the axles, and by removing said rods the box sections may be replaced by others of different size.

From the foregoing description it will be seen that I provide an exceedingly simple and efficient arrangement for handling the pipe boxes and for supporting and transporting the same.

Having now set forth the object and nature of my invention and constructions and arrangements embodying the principles thereof, what I claim as new and useful and of my own invention and desire to secure by Letters Patent is:—

1. In a molding plant, a bogie or truck having supporting wheels, a pipe molding box or flask made in sections, said sections being supported on the bogie or truck in vertical position for movement toward and from each other to open and close the box or flask.

2. In a molding plant, a bogie or truck having supporting wheels, a pipe molding box made in sections, said sections being suspended and supported in vertical position on said bogie or truck for movement toward and from each other, and means for locking said sections together.

3. In a foundry plant, a bogie, a pipe

molding box divided longitudinally into halves and mounted on said bogie for movement toward and from each other and means for locking said halves together.

4. A bogie or truck for molding plants having supporting wheels, in combination with a pipe molding box made in sections, said sections having sleeves whereby they may be suspended in vertical position upon the bogie or truck for movement toward and from each other, and means for locking the sections together.

5. A bogie or truck for molding plants having supporting wheels, in combination with a pipe molding box made in sections, horizontally arranged supports carried by said wheels, said sections being suspended in vertical position upon said supports for movement toward and from each other, and means for locking said sections together.

6. A bogie or truck for molding plants having supporting wheels, a frame carried by said wheels, supporting rods carried by said frame, a pipe molding box made in sections, said sections being suspended in vertical position upon said rods, for movement toward and from each other and means for locking said sections together.

7. A bogie or truck having supporting wheels, a pipe molding box made in sections capable of being closed to receive the mold and the molten metal, and of being opened to remove the mold and pipe casting therefrom, said box sections held in vertical position on said bogie or truck, and means for opening and closing said pipe box sections.

In testimony whereof I have hereunto set my hand in the presence of the subscribing witnesses, on the 21st day of October A. D., 1908.

FRED HERBERT.

Witnesses:

H. NIXON,
F. HERBERT, Jr.