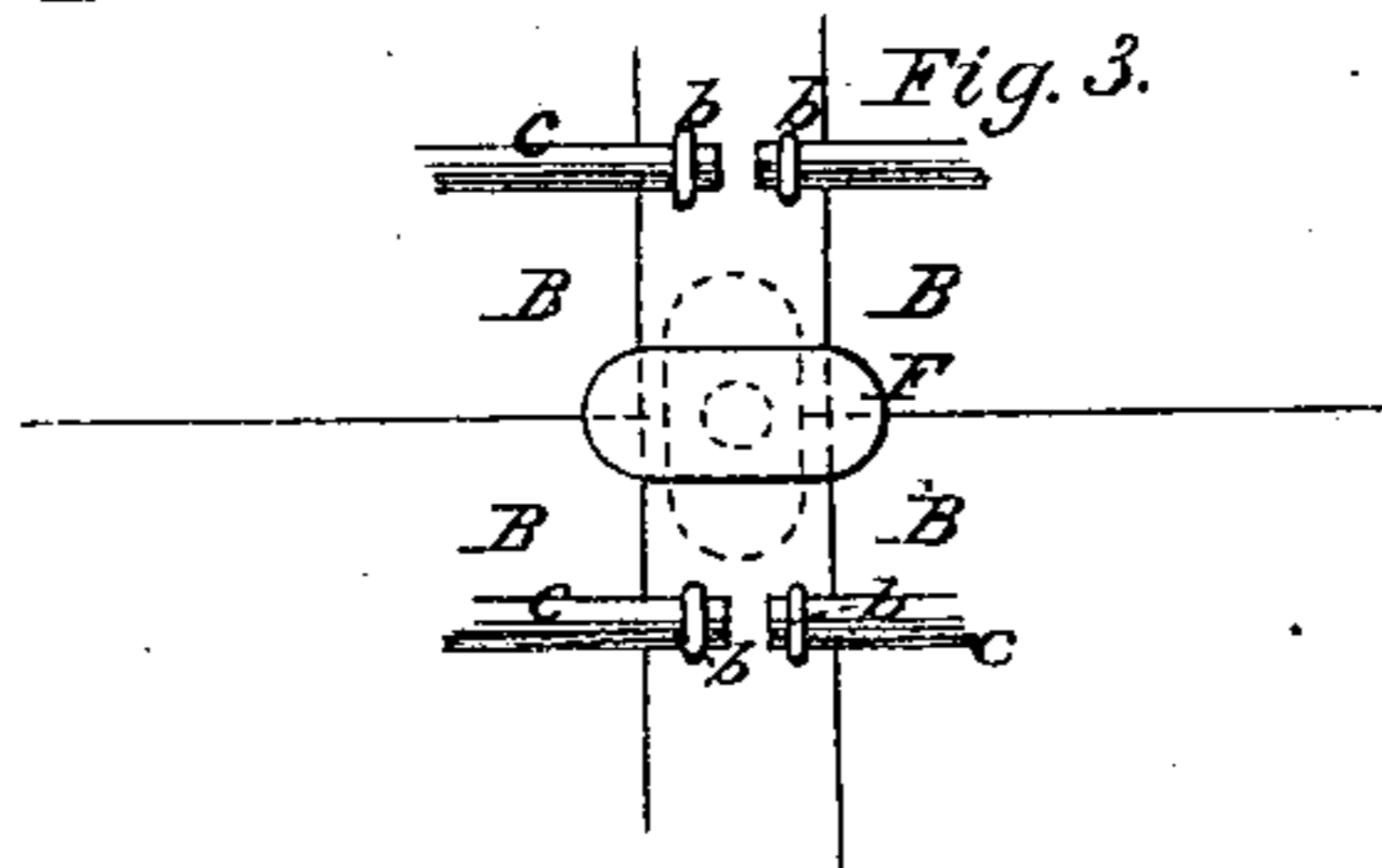
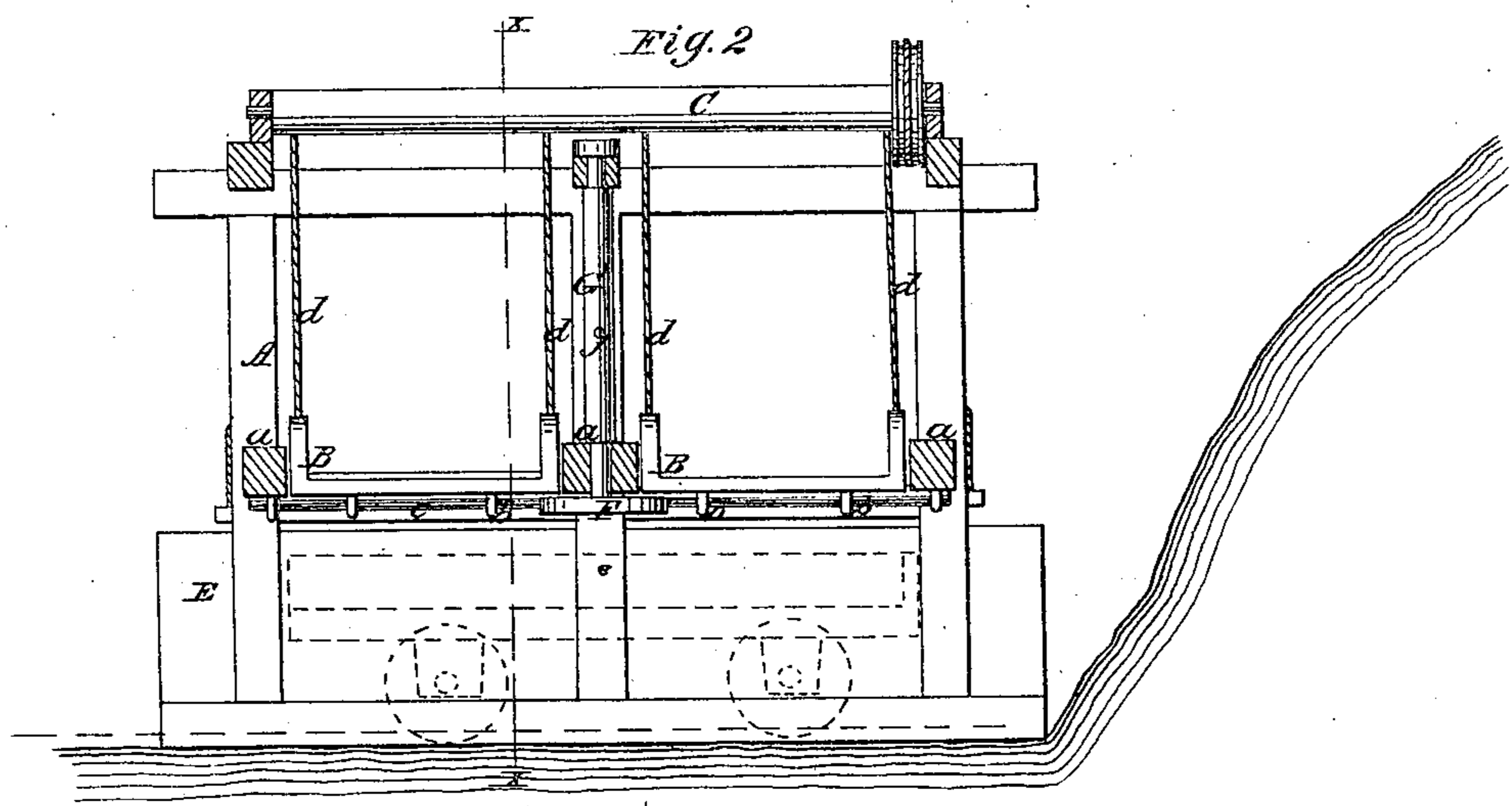
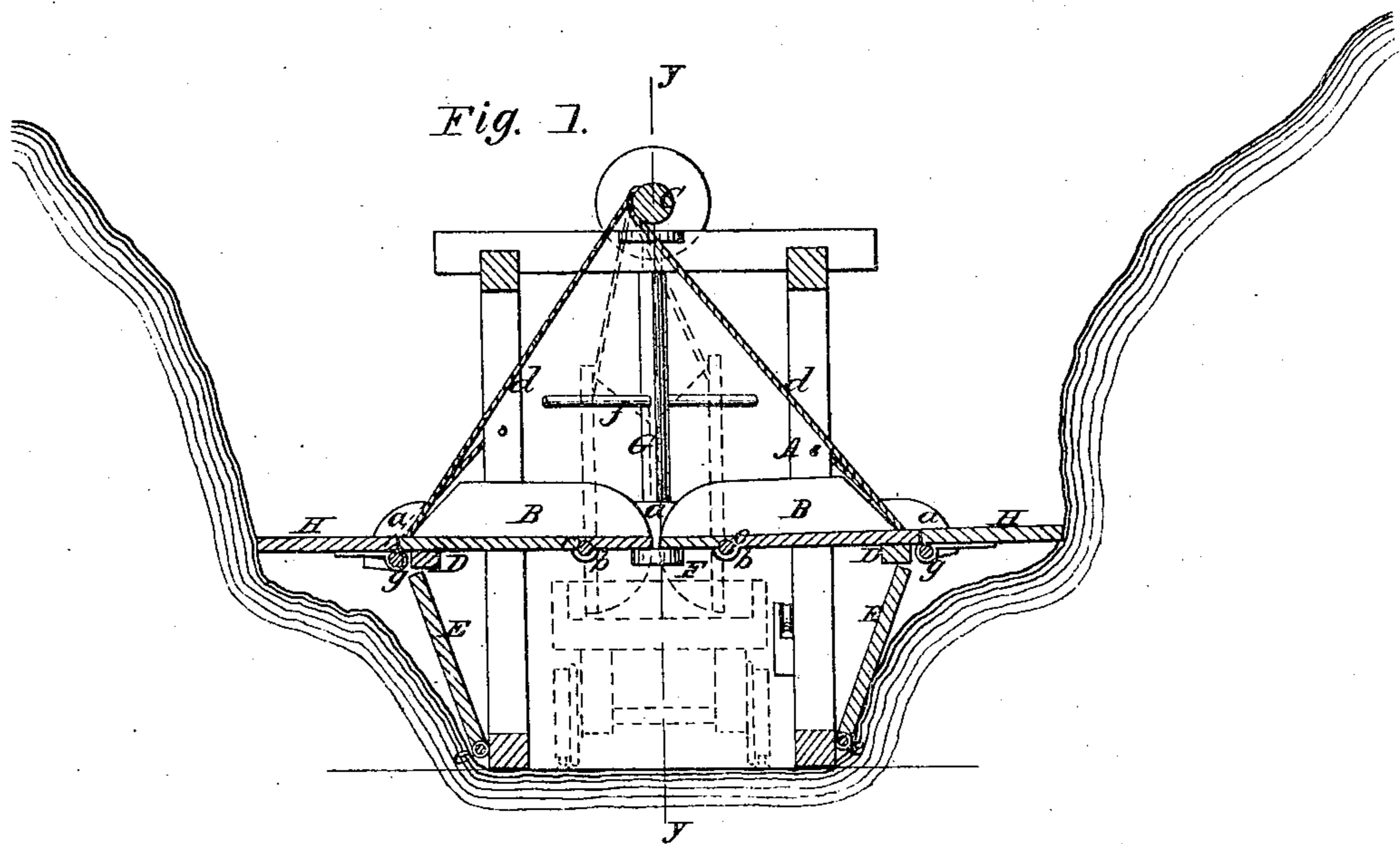


C. Phillips.

Excavator.

N^o 14,066.

Patented Jan. 8, 1856.



UNITED STATES PATENT OFFICE.

CHARLES PHILLIPS, OF DETROIT, MICHIGAN.

MACHINE FOR LOADING DIRT-CARS.

Specification of Letters Patent No. 14,066, dated January 8, 1856.

To all whom it may concern:

Be it known that I, CHARLES PHILLIPS, of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Device for Loading Cars and other Vehicles to be Used in Excavating; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a transverse vertical section of my improvement, (*x*), (*x*), Fig. 2, showing the plane of section. Fig. 2, is a longitudinal vertical section of same (*y*), (*y*), Fig. 1 showing the plane of section. Fig. 3, is an under view of a portion of the device showing the button by which the tilting boxes are secured.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in having tilting boxes and aprons or leaves attached to a suitable framing and arranged as will be presently shown and described, so that cars wagons or other vehicles may be driven or "backed" underneath the tilting boxes and within the framing and expeditiously loaded the framing being fitted within the bank or hill, which is being excavated, and moved from time to time as occasion requires.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a framing of rectangular form having transverse beams (*a*), attached to it between which beams boxes B, are fitted. The boxes B, are fitted by loops or eyes (*b*), to longitudinal rods (*c*), attached to the under sides of the beams (*a*), the boxes being allowed to turn upon the rods (*c*).

On the upper part of the framing A, a longitudinal shaft C, is placed to which chains (*d*), are attached, said chains being connected to the outer ends of the boxes, B. The boxes B, have weights, D, attached to their under sides near their outer ends.

The outer ends of the boxes rest upon inclined side pieces E, E, the lower ends of which are attached to the framing A, by hinges (*e*). The inner ends of the boxes, B, rest upon a button, F, see Fig. 3, which is attached to the lower end of a shaft G, said shaft being placed vertically in the

framing and having a horizontal lever (*f*), passing through it see Figs. 1 and 2.

H, H, are aprons or leaves attached by hinges or joints (*g*), to the ends of the beams (*a*), as shown clearly in Fig. 1.

The device is used in the following manner, an opening or cut is first made in the hill or eminence to be excavated to receive the framing, A, as shown in Fig. 1. The outer ends of the aprons or leaves H, H, rest upon the sides of the cut. The shaft, G, is so turned that the inner ends of the boxes, B, will rest upon the button F. The boxes, B, are then filled with earth by means of teams and scrapers or in any proper manner the teams passing over the boxes, B, and depositing the earth in the boxes the earth being taken from the hill at the sides and back of the machine. When the boxes are filled the shaft G, is turned so that the button, F, will be turned free from the inner ends of the boxes and the shaft, C, is turned by means of horse power, or in any proper manner, and the boxes will tilt the earth falling into the car, wagon, or cart, which is backed underneath the boxes and within the framing A, as shown by dotted lines in both figures. The boxes return to their original position when the shaft, C, is relieved from the power previously applied to it in consequence of the weights, D, and the button is again turned underneath the boxes by turning the shaft, G, the box is refilled again tilted and so on. The framing A, is moved into the embankment from time to time as the work progresses, the earth being removed behind the framing. The aprons or leaves H, facilitate the passage of the team and scrapers upon the boxes as they rise or fall according to the depth of the cut.

The above invention is simple, and wagons, carts or cars, may be expeditiously loaded thereby.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is,

The framing A, with boxes B, and aprons or leaves H, attached to it, and arranged substantially as herein shown and described for the purpose specified.

CHAS. PHILLIPS.

Witnesses:

ELISHA CHASE,
WM. COX.