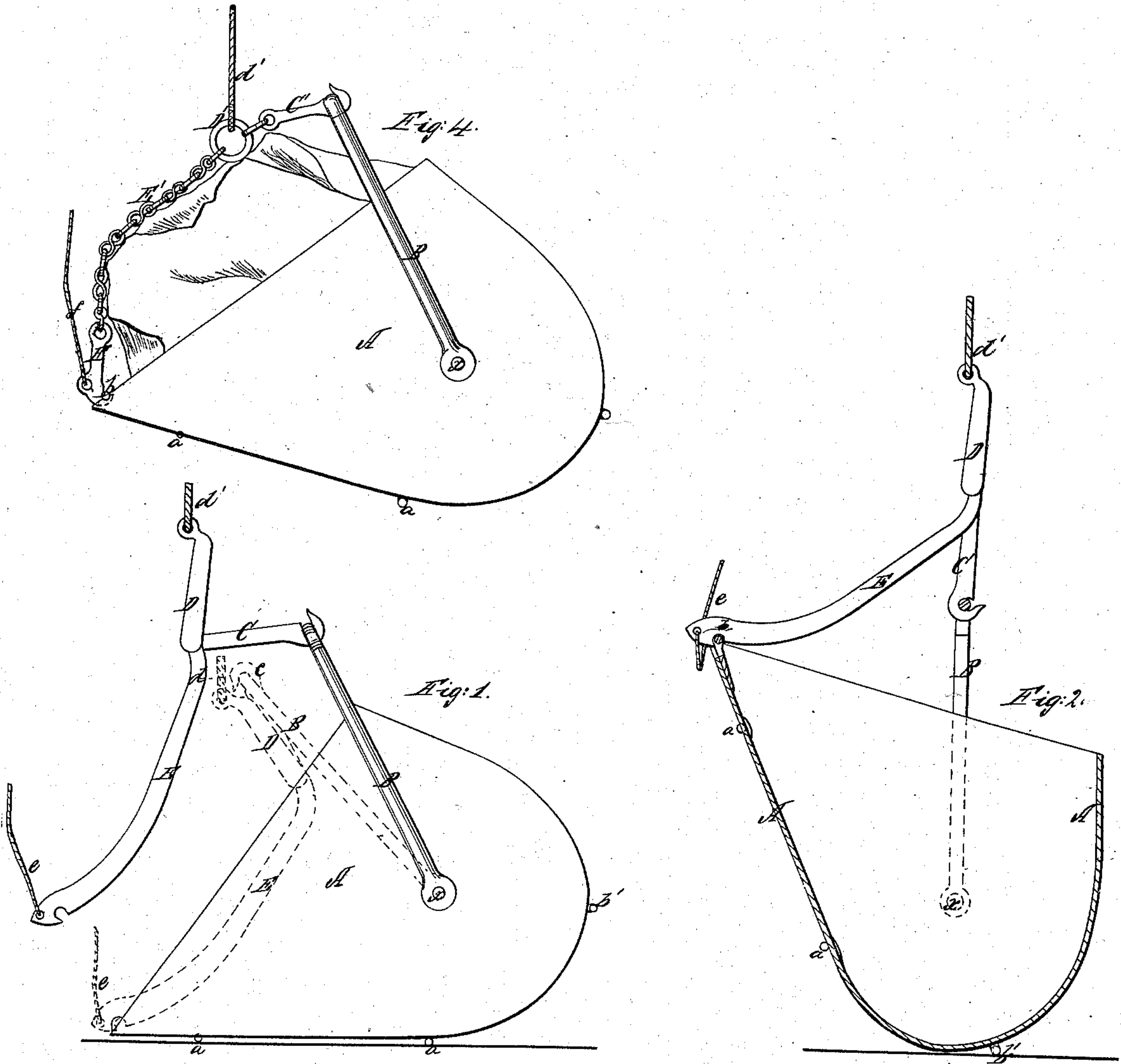


G. FOCHT.
HOISTING BUCKET.

No. 17,034.

PATENTED APR. 14, 1857.
2 SHEETS—SHEET 1.

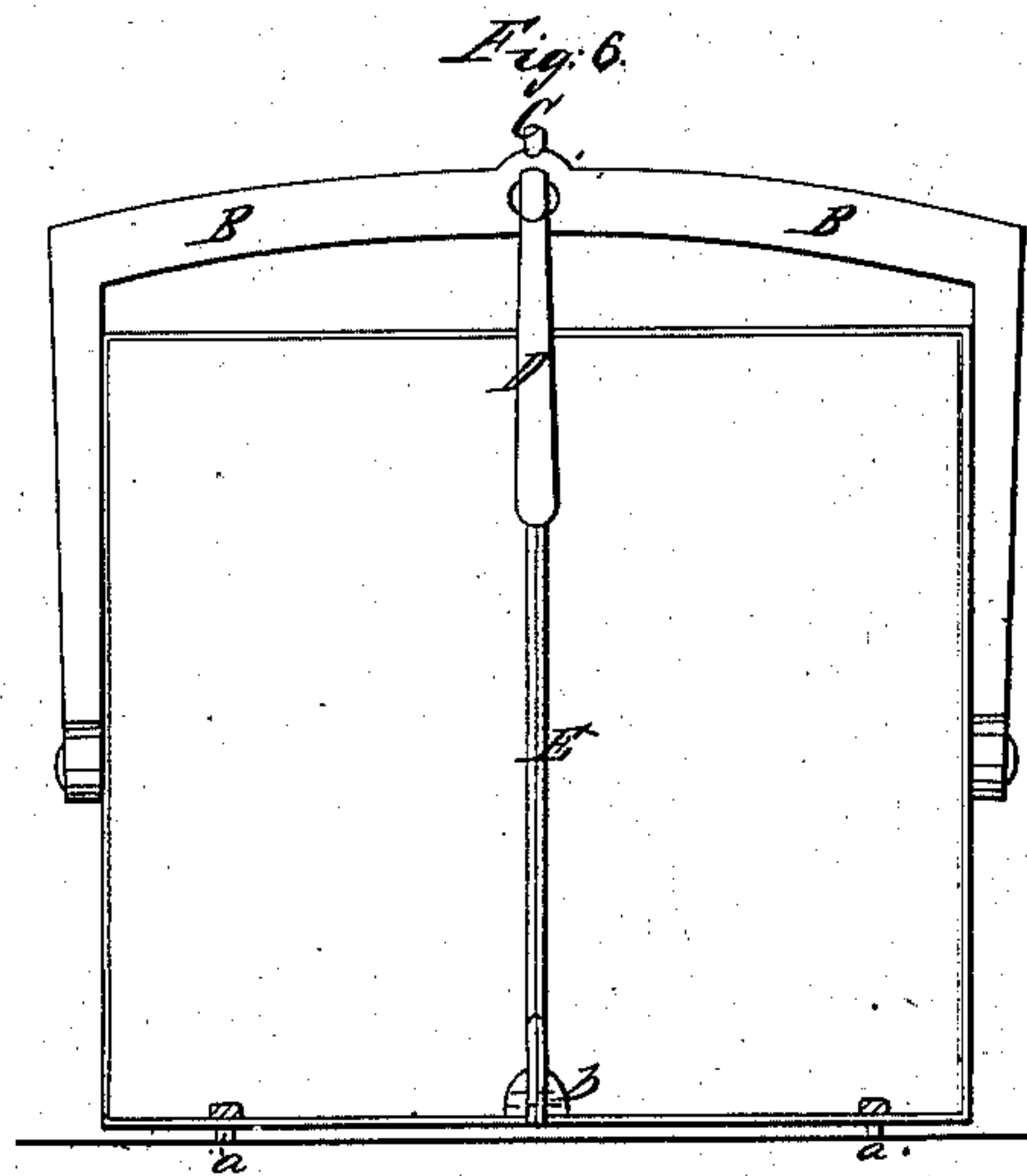
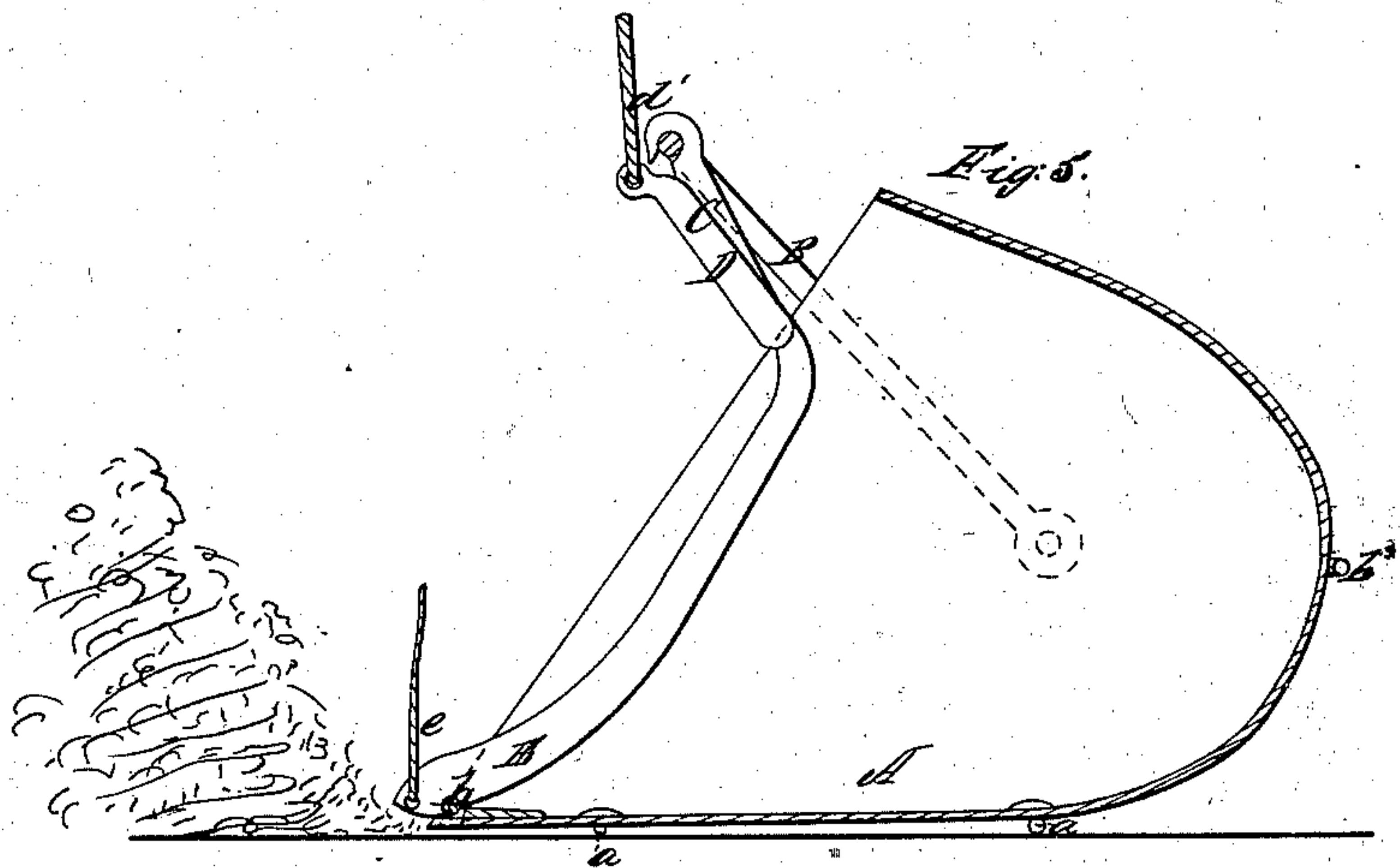
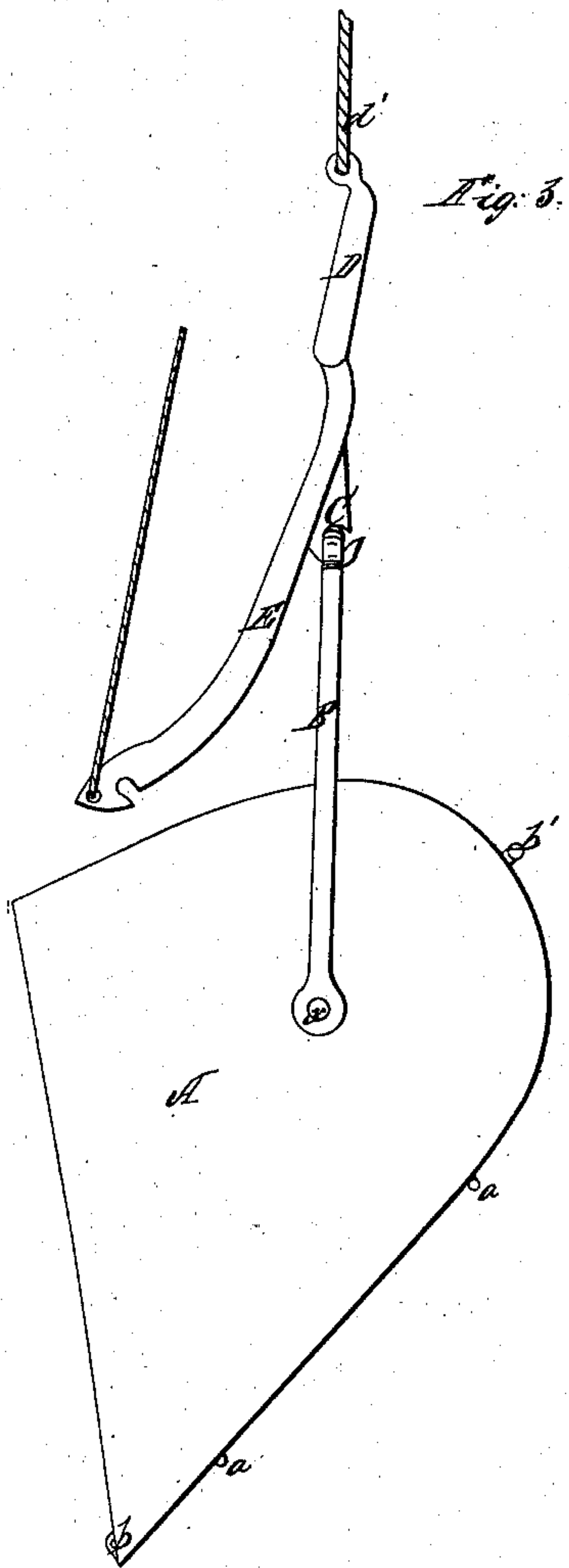


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HOISTING BUCKET.

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UNITED STATES PATENT OFFICE.

GEORGE FOCHT, OF READING, PENNSYLVANIA.

HOISTING-BUCKET FOR COAL, &c.

Specification of Letters Patent No. 17,034, dated April 14, 1857.

To all whom it may concern:

Be it known that I, GEORGE FOCHT, of Reading, county of Berks, in the State of Pennsylvania, have invented a new and useful Improvement in Buckets for Hoisting Coal, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the construction of the hereinafter described hoisting and dumping bucket.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the accompanying drawing (A) represents the bucket, which is made of thin metal of the form represented.

(*a, a,*) represent two sets of small rollers or casters and (*b', b',*) one set of larger ones the use of which will be explained hereafter.

(*B,*) represents the handle of the bucket which is hinged or pivoted at (*X*).

(*C,*) is the hoisting hook, which together with the holding bar (*E,*) and link (*D,*) form the hoisting or holding and dumping mechanism.

(*b,*) is the roller lip onto which the hook or notch in the lower end of bar (*E,*) locks and (*e,*) rope by which said bar is unlocked from said roller or lip.

(*d'*) is portion of a rope which is supposed to be attached to a crane or other machinery by which the bucket is elevated.

(Figure 5,) represents the bucket in position as being filled, (Fig. 2,) as when being elevated and (Fig. 3,) as when the bar (*E,*) is unlocked or the bucket is emptying its contents.

The operation with my bucket is as follows: Supposing it is required to discharge a cargo of coal or grain from a vessel, the bucket is lowered and being allowed to rest on the rolls (*a, a,*) in position as seen at (Fig. 5) the bar (*E,*) is placed in position as shown and the bucket forced into the heap of grain or other material, the bar (*E,*) cutting its passage through readily, as it is made sharp like a knife on the front edge. When the bucket is sufficiently charged, by running up, the cord (*d'*) the bucket is elevated at its forward end until brought into position seen at (Fig. 2,) its circular end or

bottom coming into the same plane as that in which the long side was when being forced into the heap; the bucket is now elevated, or if the point of suspension is not over the spot from which the grain is taken, (as frequently happens) the bucket is gradually elevated by the rope and by means of the rolls (*b'*) is enabled to readily run back or forward on the deck or floor until it gets under the point of suspension. When the bucket arrives at the place where it is desired to dump the bar (*E,*) is thrown out of catch with the roll (*b,*) by means of the cord (*e*) when the bucket immediately turns upon its pivots (*4,*) bottom side upward as seen at (Fig. 3,) and its contents discharged and lowered for another charge which is made as described.

It will be observed that the holding apparatus is so constructed that the bucket may be readily forced into a heap, of material without any tendency to unlock said holding arrangement (which is in the center of the bucket) and that the bar (*E,*) being sharp like a knife is enabled to make its way through. Also that the bucket being on rolls (*a, a,*) is readily forced into the material having its front edge acting as a shovel and that as the bucket is elevated its forward end rises first until brought into the proper position to retain the material when the whole is elevated.

The operation of the bucket is greatly facilitated by the rolls (*b', b',*) when the bucket is not filled under the point of suspension (which is often the case).

It will be seen that the greater the weight in the bucket, the greater is the tendency of the bar or hook rod (*E,*) remain locked into or over the roll (*b,*) as it is necessary for said hook bar to slightly raise the bucket's weight before it can be unlocked, which, resistance is readily overcome when desired by having the lip or roll (*b,*) pivoted or running on journals as an axle, whereby the catch is rolled off.

It is some times required to hoist in the bucket material having large lumps as for instance coal, in which instance it would be impracticable to use the cutting bar (*E,*) therefore substitute therefor, the chain (*E'*), see (Fig. 4,) where a lump of coal is represented in the bucket. The lump or pieces are placed in the bucket and the chain (*E'*) which is attached to the hook (*C'*) simi-

lar to the one before described, is passed over the lump and attached to the bucket by means of the bar (F,) or link, which is provided with a notch similar to that in the bar (E,) before described, and is locked in like manner to the roll or lip (b). It will be seen that the only difference between this device and the one before described is in having a chain substituted for a part of the bar (E,) by which large projecting pieces may be accommodated in the bucket.

Having explained the construction and operation of my bucket, what I claim as my invention and desire to secure by Letters Patent is—

1. The knife edge bar (E) arranged with a link (C,) and hook (D), whereby the handle is clasped with the front edge of

the bucket as hereinbefore described or any arrangement substantially the same. 20

2. Pivoting the handle to the sides of the bucket near the bottom as herein described and clasping said handle to the front of the bucket, whereby said bucket is completely inverted when said clamp is unlocked from said bucket, and whereby the tendency of any weight in the bucket is to keep said handle clasped with said bucket, as hereinbefore set forth. 25

In testimony whereof I have hereunto set my hand this thirteenth day of March 1857. 30

GEORGE FOCHT.

Witnesses:

ABRAHAM KERPER,
ADAM FASIG.