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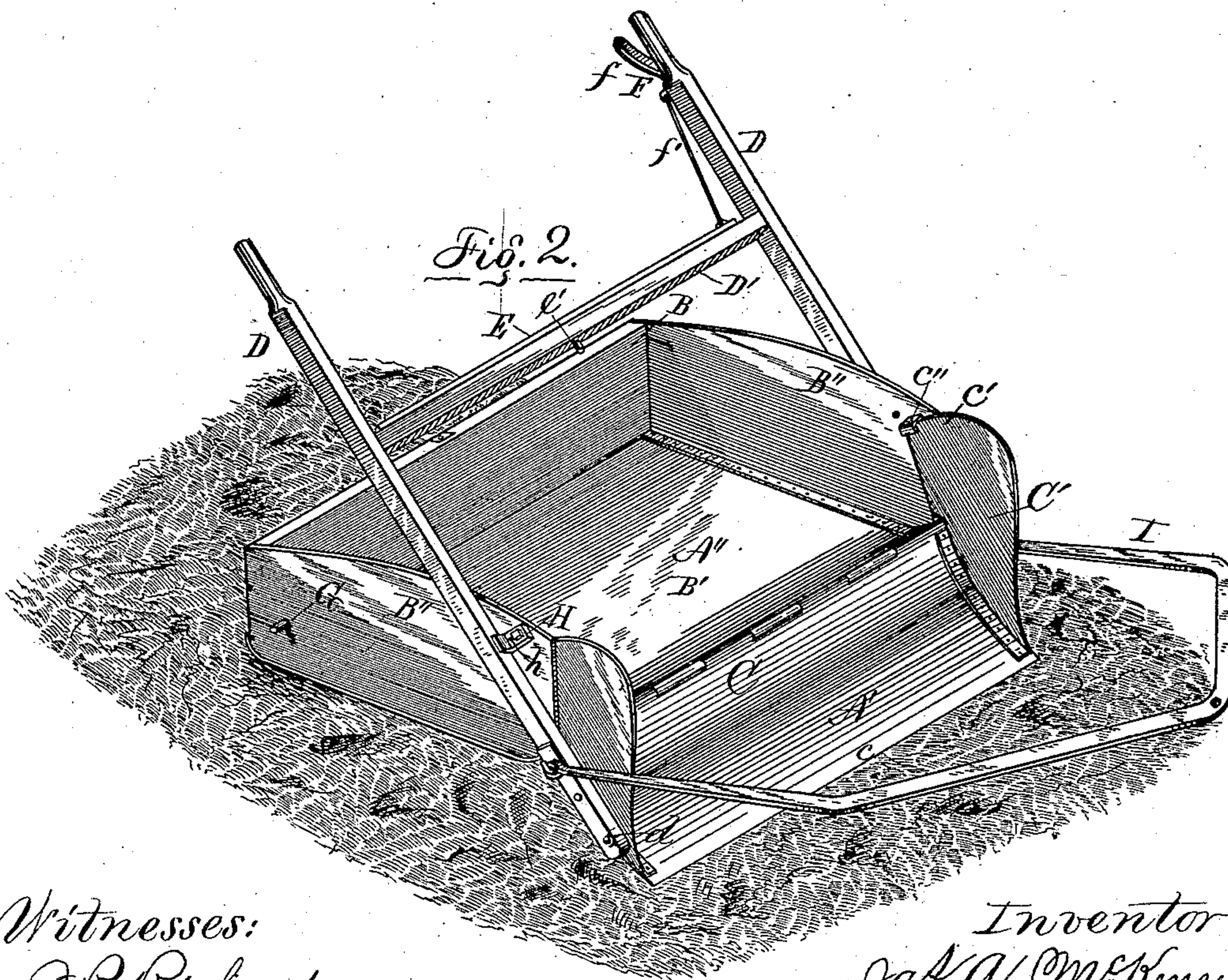
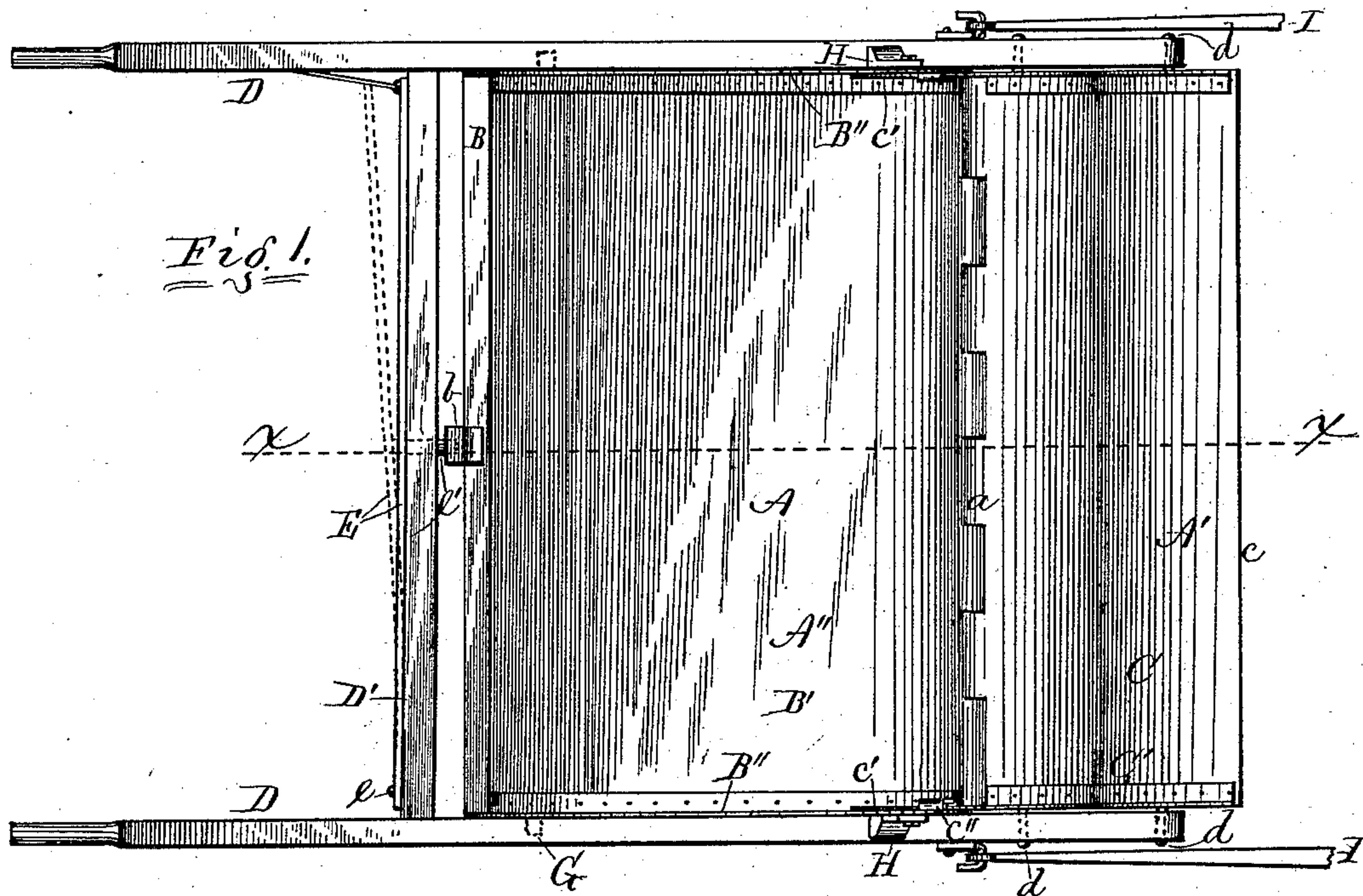
2 Sheets—Sheet 1.

J. A. McKENZIE.

ROAD SCRAPER.

No. 311,195.

Patented Jan. 27, 1885.



Witnesses:

S. R. Richards.
W. F. Hallack

Inventor:

Jas. A. McKenzie,
 By W. D. Richards,
 his atty.

(No Model.)

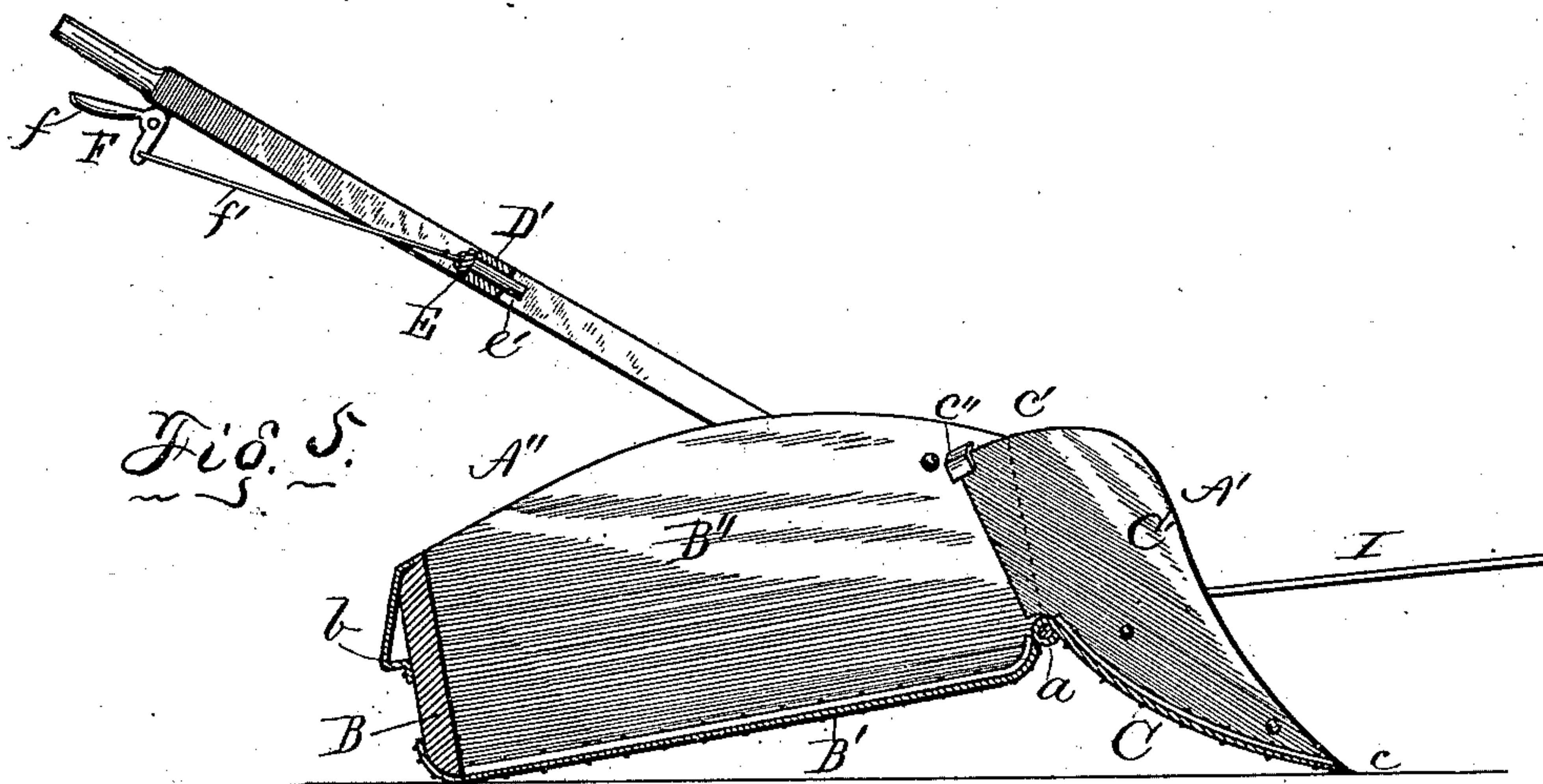
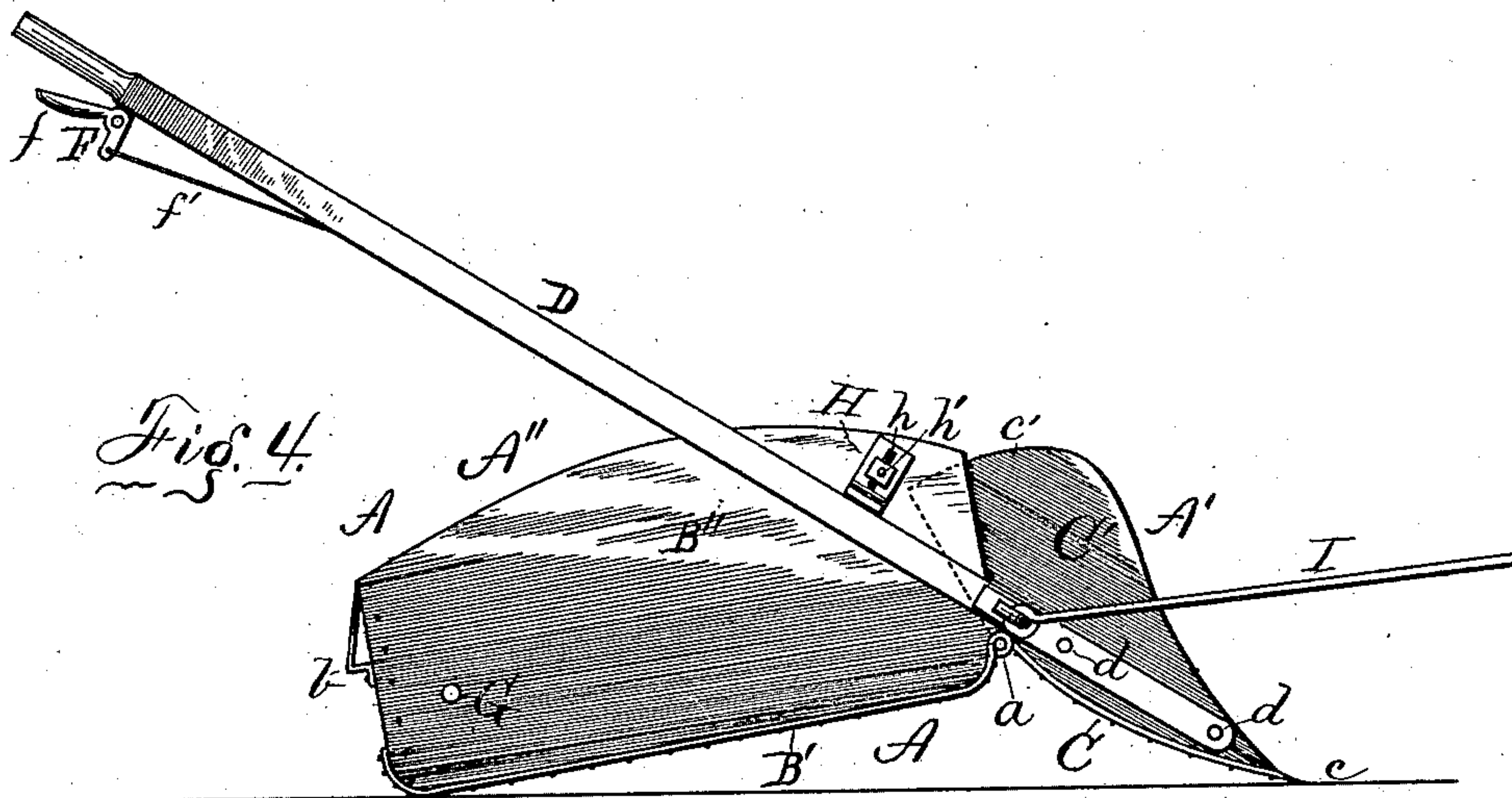
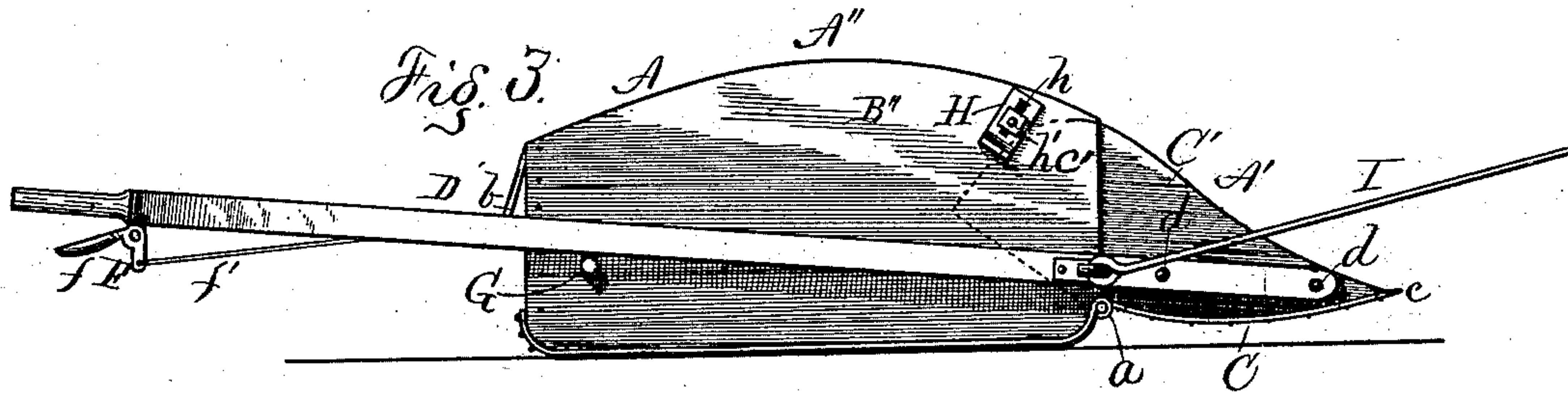
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Witnesses:
G. R. Richards.
M. F. Halleck.

Inventor:
Jas. A. McKenzie,
By W. D. Richards
his Atty.

UNITED STATES PATENT OFFICE.

JAMES A. MCKENZIE, OF GALESBURG, ILLINOIS.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 311,195, dated January 27, 1885.

Application filed April 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. MCKENZIE, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Road-Scrapers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements most applicable to that class of road-scrappers in which handles projecting in rear of the scraper are used to manipulate it in loading and to tilt it in unloading, although some of the features of my invention are applicable to other types of road-scrappers.

My invention has for its main object to render the operation of the scraper more effective, while at the same time much easier for the operator to handle, especially in loading, than the ordinary road-scraper; and to this end and object my invention consists, in its main feature, in a scraper made in two parts—a forward part and a rear part—hinged to each other, and the forward part provided with handles fixed thereto, by means of which it (the forward part) in loading may be inclined to cut into, elevate, and pass the dirt into the rear part, which rests at its rear end on the ground and receives and carries the dirt without its weight being almost entirely sustained by the operator, as is the case with the ordinary scraper.

My invention further consists, in combination with the foregoing main feature, of a stop to gage the inclination or angle which the forward and rear parts may bear to each other while loading, and still further in a lock by means of which the handles and the rear part may be locked to each other, and thereby render the connection between the forward part and rear part rigid, whereby the handles may be used to turn the scraper over forward to dump or unload it, in the usual manner.

My invention further consists in the use of wings or plates connected with or forming part of the front part, and extended into the

rear part, to act as shields to prevent dirt escaping between the parts when the front part is turned down at its front end in loading.

The invention further consists in constructions and combinations hereinafter described and claimed.

To enable those skilled in the art to which my invention appertains to fully understand and practice the same, I will now proceed to more fully explain it by reference to the accompanying drawings, forming part of this specification, and in which I have illustrated the several features of my said invention carried out in a form in which I have successfully practiced it in a working road-scraper, and which manner of carrying out my invention is the best known to me, though practice or experience may indicate either to me or to others some better way of carrying the same into practical operation.

In said drawings, Figure 1 is a top plan showing the handles locked to the rear part. Fig. 2 is a perspective showing the scraper adjusted for scraping. Fig. 3 is a side elevation showing the parts in same relative position as shown at Fig. 1; Fig. 4, a side elevation showing the parts as at Fig. 2; Fig. 5, a sectional elevation in line *xx* in Fig. 1, but showing the parts in relative positions as shown at Figs. 2 and 4.

Referring to the drawings by letters, the same reference-letter indicating the same part in the different figures, A represents the scraper box or body, formed in two parts—a forward part, A', and a rear part, A"—hinged to each other on the line *a*, which is preferably located at about one-third of the distance from the front end to the rear end of the scraper-box. The rear part, A'', is formed of a back, B, bottom B', and sides B'', which may be constructed as shown, or in any other desired form or manner; but I prefer the bottom B' turned up slightly at its forward end to raise the hinge *a* and the front part, A', above the ground, when the scraper is in position shown at Fig. 3. The forward part, A', is formed of bottom C and sides C'. The bottom C is preferably curved from front to rear, as shown, but may be of other form, and has its front edge, *c*, sharpened. The sides C' are extended rearward to form guards *c'*, which prevent dirt escaping when the scraper is in the posi-

tion shown at Figs. 2, 4, and 5. The guards c' may be integral with the sides C' , as shown, or they may be attached thereto. A bent lug, c'' , attached to each side B'' extends over the adjacent dirt-guard c' , and retains it in place as the parts $A' A''$ swing on the hinge a .

$D D$ are the handles, fixed at their forward ends by bolts or rivets d , or otherwise, one to each side C' . The handles D extend in rear of the back B , and are connected by a bar, D' , a short distance from and in rear of the back B .

E is a spring plate or rod, secured at e to the bar D' , and provided with a bolt, e' , near its mid-length portion, which bolt e' passes through the bar D' and engages with a catch, b , on the back B , when the handles are in the relative positions to the scraper-box shown at Figs. 1 and 3. The bolt e' is retracted and released from the catch b by pressing with the hand on the end f of a thumb-lever, F , which is pivoted to one of the handles D , and connected by a rod, f' , with the free end of the spring-rod E .

$G G$ are lugs, one on each side B'' , which limit the downward movement of the rear ends of the handles D .

$H H$ are lugs, with slots h , through which bolts h' pass to secure them, one to each side B'' . The lugs H are adjustable lengthwise of themselves, and may be held after adjustment by the bolts h' .

I is the draft-bail, hinged at its ends, preferably, to and near the forward ends of the handles D ; but it may be hinged to other suitable parts of the scraper.

To place the scraper in position for loading, the bolt e' is released from the catch b , and the handles D then turned upward to bring the parts $A' A''$ into the positions shown at Figs. 2, 4, and 5, in which positions the forward end of the front part, A' , will be in the most favorable position to enter the dirt, which will pass upward over said part A' , and into the part A'' , the rear end of which is resting on the ground, and which will thereby sustain the greater part of the weight of the dirt, which is sustained by the operator in the use of the ordinary scraper. The dirt in the part A'' will hold it steady, and thereby act as a ballast in steadying the part A' when cutting in hard and uneven dirt, and where it is liable to much disturbance of its motion, and thus greatly facilitate its operation and render it much more easily operated. The weight of the dirt being in so great a part sustained by the part A'' , resting on the ground, will enable the operator to load and operate a larger scraper, and one that will carry a larger load of dirt than could otherwise be done, and thus enable him to do more work than with the ordinary scraper.

While loading, as last described, the handles D may rest against the lugs H , or at any suitable point beneath said lugs, which will bring the part A' into the most favorable inclination for entering and cutting the dirt and

loading the scraper, and the lugs H may be adjusted to regulate the extent to which the handles may be raised, and thereby the inclination of the part A' adapted to harder or looser dirt, as may be required.

When loaded, the handles D are pressed down at their rear ends until the bolt e' engages with the catch b , thus turning the parts $A' A''$ into the relative positions shown at Fig. 3, and thereby carry the front edge of the part A' out of the dirt and bring all the parts into such position as to admit of dragging the scraper to where it is to be discharged, where it may be tilted or turned forward by the handles to discharge it in the ordinary manner.

The handles may be fixed to the part A' differently from what I have shown, and said handles may be locked to the part A'' differently from what I have shown; hence I do not limit my claims to the specific method of attaching the handles to the front part, nor to the special devices for locking them to the rear part; nor do I limit my claims to the specific construction of hinge shown for connecting the parts $A' A''$, as any class or kind of hinge may be used which will suit for the purpose; but

What I claim as new, and desire to secure by Letters Patent, is—

1. A road-scraper formed in two parts—a shorter forward part and longer rear part—hinged to each other and adapted, the forward part to be turned downwardly at the front end, whereby it may enter and raise the dirt and discharge it into the rear part, which rear part is raised at its front end by turning down the front end of the forward part, substantially as described.

2. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part and a rear dirt-receiving part—hinged to each other, handles fixed to the forward part, for the purpose specified.

3. A road-scraper consisting of two parts hinged together, the hinged and adjacent parts adapted to be raised in the act of scraping and loading, and having the guards c' lapping and engaging when in said raised position, substantially as and for the purpose specified.

4. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part and a rear dirt-receiving part—the forward part being provided with dirt-guards c' , the handles D , fixed to the forward part, for the purpose specified.

5. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part and a rear dirt-receiving part—hinged to each other, handles fixed to the forward part, and a lock by which the handles may be locked and released from the rear part of the scraper-box, substantially as and for the purpose specified.

6. In combination with the scraper-box,

made in two parts, hinged to each other, and the handles fixed to the forward part, A', the catch b, bolt e', spring E, rod f', and elbow-shaped thumb-lever F, substantially as and 5 for the purpose specified.

7. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part and a rear dirt-receiving part—hinged to each 10 other, and handles D, stops H, for the purpose specified.

8. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part 15 and a rear dirt-receiving part—hinged to each other, and handles D, adjustable stops H, for the purpose specified.

9. In a road-scraper, in combination, substantially as described, with a scraper-box formed in two parts—a forward cutting part 20 and a rear dirt-receiving part—hinged to each other, and handles D, the stops G, for the purpose specified.

10. In combination, the box A, made in two parts, A' A'', hinged to each other, handles 25 D, fixed to the part A', and the stops G and H, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. MCKENZIE.

Witnesses:

EDWIN H. LEACH,
BERNARD McCABE.