

(No Model.)

J. N. BRIGGS.

SNOW PLOW.

No. 285,383.

Patented Sept. 25, 1883.

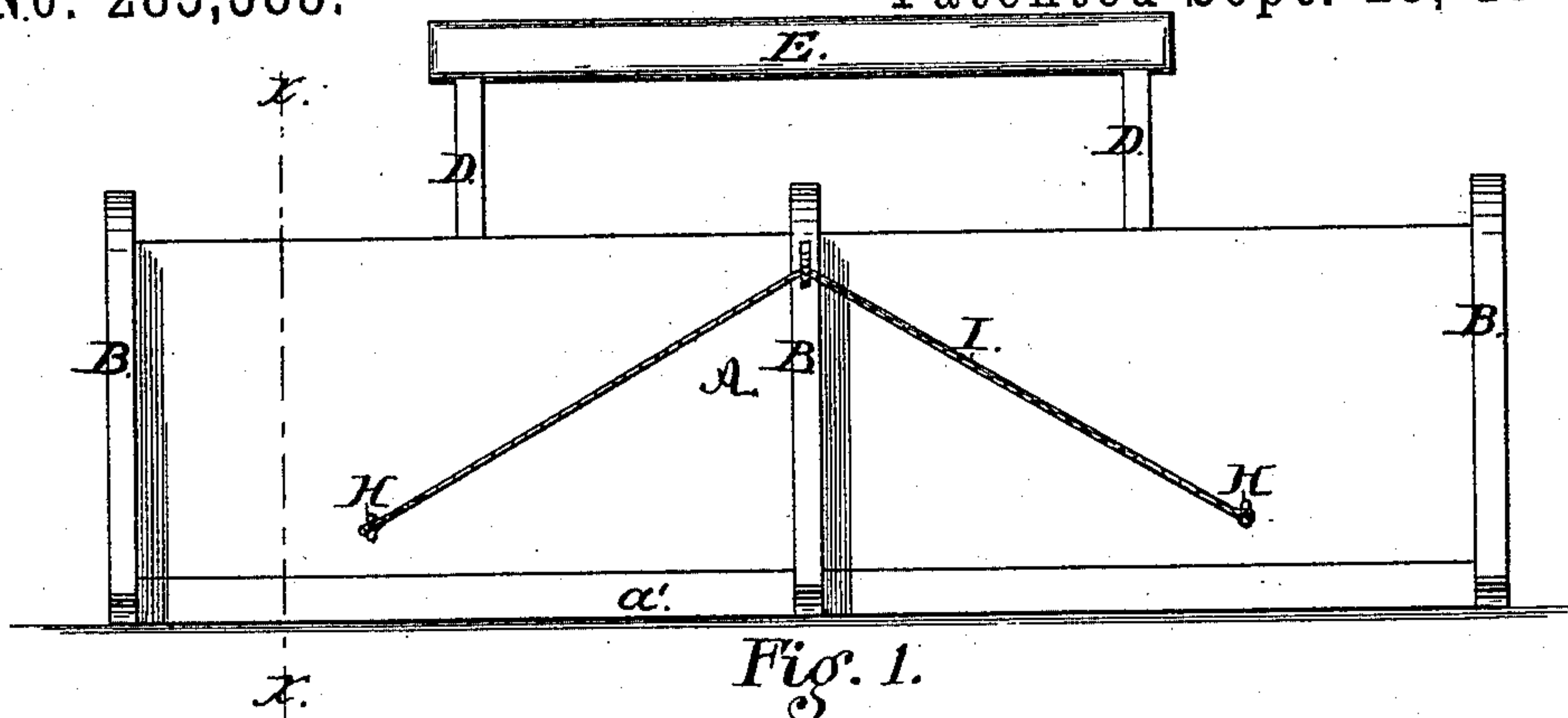


Fig. 1.

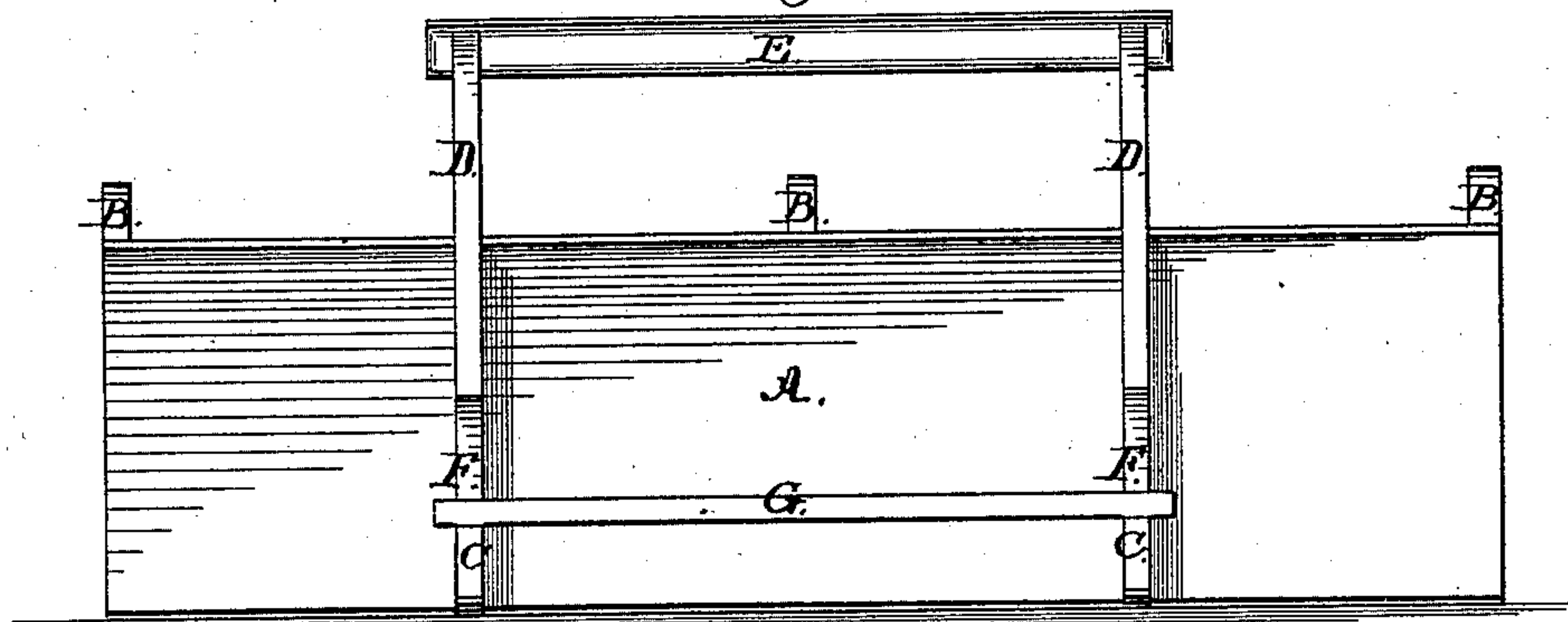
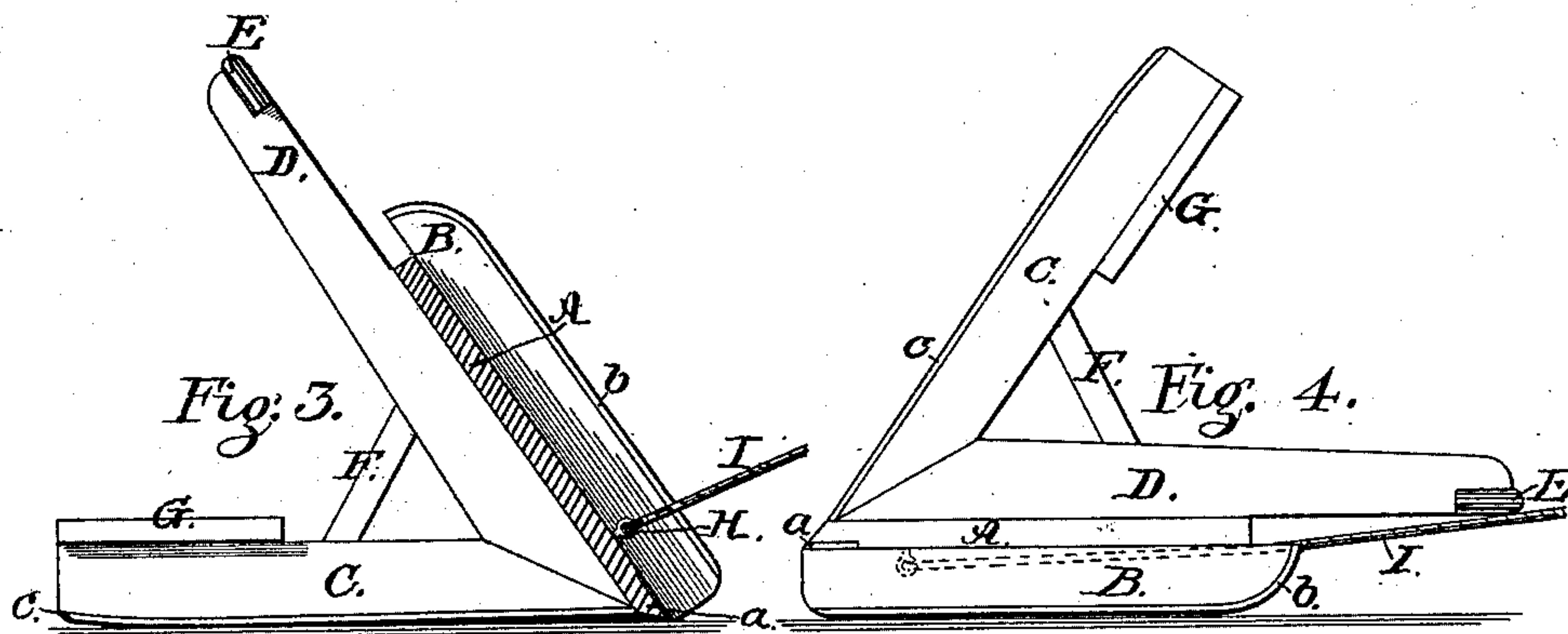


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN N. BRIGGS, OF COEYMANS, NEW YORK.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 285,383, dated September 25, 1883.

Application filed February 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. BRIGGS, of Coeymans, in the county of Albany and State of New York, have invented certain new and
5 useful Improvements in Snow-Scrapers, of which the following is a specification.

My invention relates to improvements in scrapers for removing snow from the surface of ice preparatory to the operation of gathering and storing it for future use; and the objects of my improvements are, first, to provide a device that will perform its work effectively with the aid of a single operator, and second, to afford proper facilities for removing
15 the scraper from place to place while it is not performing its functions. These objects I attain by means of the construction illustrated in the accompanying drawings, which form part of this specification, and in which—

20 Figure 1 is a front elevation of my improved scraper; Fig. 2, a rear elevation of the same; Fig. 3, a transverse section at the line *x x* of Fig. 1; and Fig. 4, an end elevation of the scraper in its reversed position, as when it is removed
25 from place to place.

As represented in the drawings, A is the face-board of the scraper, which is provided at its lowest verge with a sharpened edge, *a*, to which, for the purpose of resisting wear, I
30 preferably attach a metallic strip, *a'*. A series of up and down ribs, B, are fixed upon the upper surface of the face-board A to give it greater transverse strength, and to retain the snow gathered thereon while the scraper is
35 performing its work. Said ribs are made of such depth and are so fashioned that they can, when the position of the scraper is reversed, as shown in Fig. 4, be utilized as sleigh-runners, on which the scraper may be moved from
40 place to place while it is not employed in performing its functions.

The face-board A is arranged at an acute angle to a horizontal plane, as shown in Fig. 3, and, for the purpose of maintaining it in its
45 angular position while performing its work, the said face-board is provided with rearwardly-extended runners C which serve as bearers for the scraper as it slides over the ice in the performance of its work. The forward
50 end of each of said runners is fixed to the face-board A above the cutting-edge of the scraper,

so that the latter can perform its work effectively, and the rear ends of said runners have a slight upward curvature, as shown in Fig. 3, for a purpose hereinafter set forth. 55

The angle frame-pieces D are connected to the runners C and to the rear side of the face-board A. Said frame-pieces extend upward above the upper edge of the face-board, and at their upper ends are connected by means of
60 a cross-piece, E, which serves as a hand-rail for supporting the operator. Diagonal braces F are interposed between the runners C and the angle frame-pieces D, for the purpose of strengthening the structure. 65

A foot-board, G, fixed upon the rear part of the runners C, serves as a platform for the operator to stand upon while the scraper is doing its work. Said foot-board is so arranged in relation to the curved part of the runners C
70 that the operator can, by shifting his position in respect to the bearing-points of the said runners, either increase or diminish the pressure upon the cutting-edge of the face-board. Eyes or staples H are fixed in the front of the
75 face-board A for receiving the drag-ropes I or other suitable appliance whereto the necessary power can be applied for drawing the scraper around in the execution of its work.

The operation of my scraper is as follows: 80 The device being in the position shown in Fig. 3, and with horses or other motive power attached to the drag-ropes I, the operator, who also acts as the driver, takes his place on the foot-board G, and the scraper is dragged forward to perform its work. The weight of the operator prevents the scraper from being overturned by the strain on the drag-ropes I, and by taking his position near the front part of the foot-board G he can throw a greater pressure
85 on the cutting-edge of the scraper; or by moving toward the rear of the foot-board, where his weight will cause the device to rock upon the curved rear ends of the runners C, the cutting-edge of the scraper will be relieved of the pressure
90 due to his weight, and in this manner the pressure at the cutting-edge of the scraper can optionally be modified or entirely removed. When it is required to dump the scraper of its load, the operator dismounts from the foot-
100 board and the strain upon the drag-ropes I will cause the scraper to turn over into the

position shown in Fig. 4, where it will rest upon the ribs or sleigh-runners B, which should be of sufficient height to keep the eyes H clear from the surface of the snow or ice, and when
5 in the position last described the scraper may be moved on its runners B to any required place.

For the purpose of protecting the wearing-surfaces of the runners B and C from excessive wear, I preferably attach to them, respectively, the metallic shoes *b* and *c*; but when preferred said shoes may be dispensed with without detracting from the effectiveness of the
10 scraper in the performance of its work.

15 It will be observed that one person only is required to operate my scraper and to drive the horses attached thereto; but in the ordinary form of scraper now commonly used two persons are required, one to drive and the
20 other to operate the scraper. Consequently by my invention one-half of the cost of labor for operating the scraper is saved.

I claim as my invention—

1. A snow-scraper composed of a face-board, A, provided with runners B, fixed upon its
front side, as herein described, and the runners C, rigidly secured to its rear side, the runners C being arranged entirely behind the
scraper-edge of the face-board A in such manner that said face-board while scraping will be
30 maintained in a fixed unadjustable angular position, but will be left free to be tilted over upon its runners B when occasion requires, as and for the purpose herein specified.

2. In a snow-scraper, the combination of the
35 face-board A, the ribs or runners B on the outer face of said face-board, the rearwardly-arranged runners C, and the foot-board G, all constructed and arranged to operate as and for the purpose herein specified.

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Witnesses:

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