

(No Model.)

O. A. CLARK.
SNOW PLOW.

No. 426,435.

Patented Apr. 29, 1890.

Fig. 1.

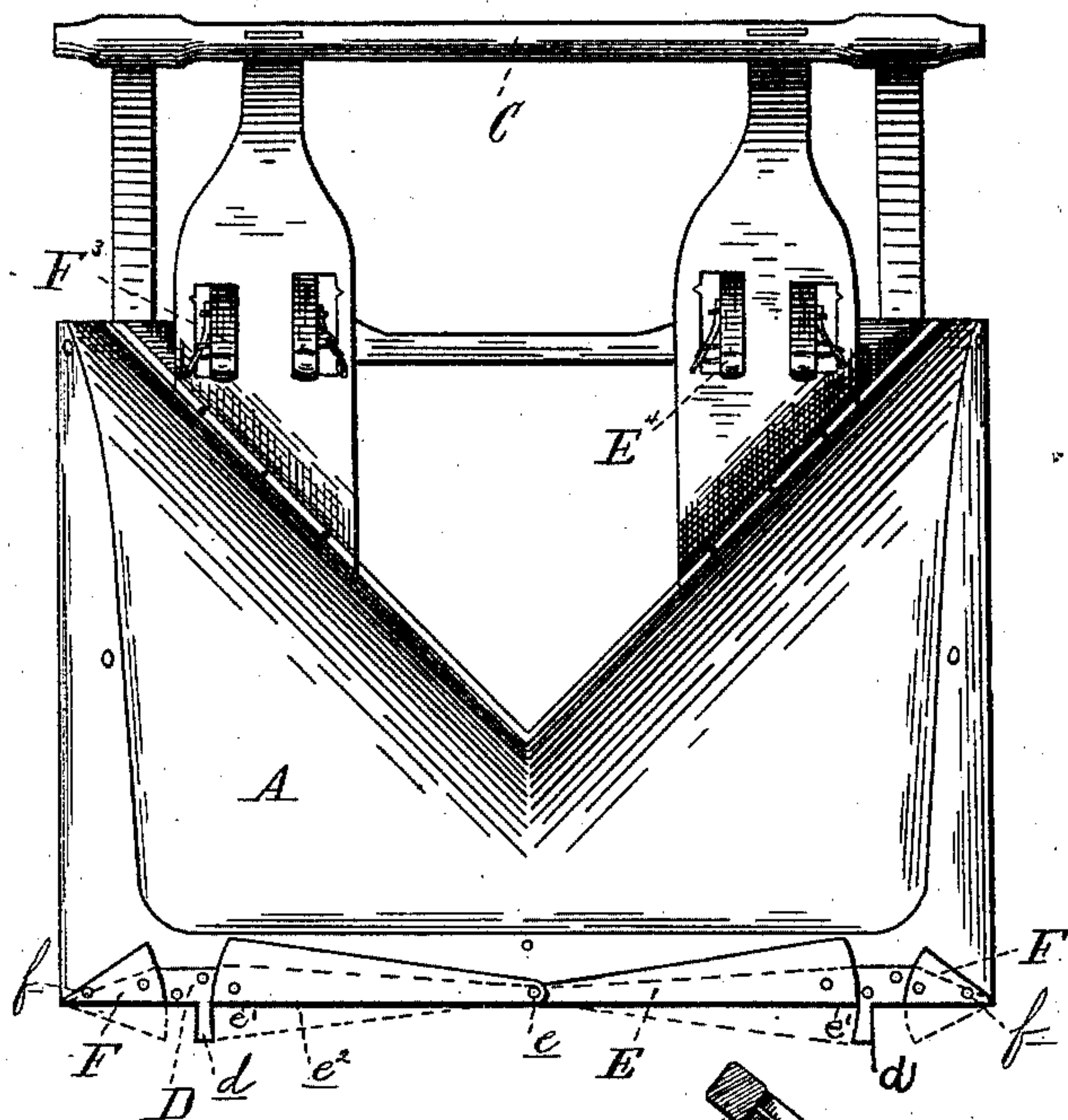
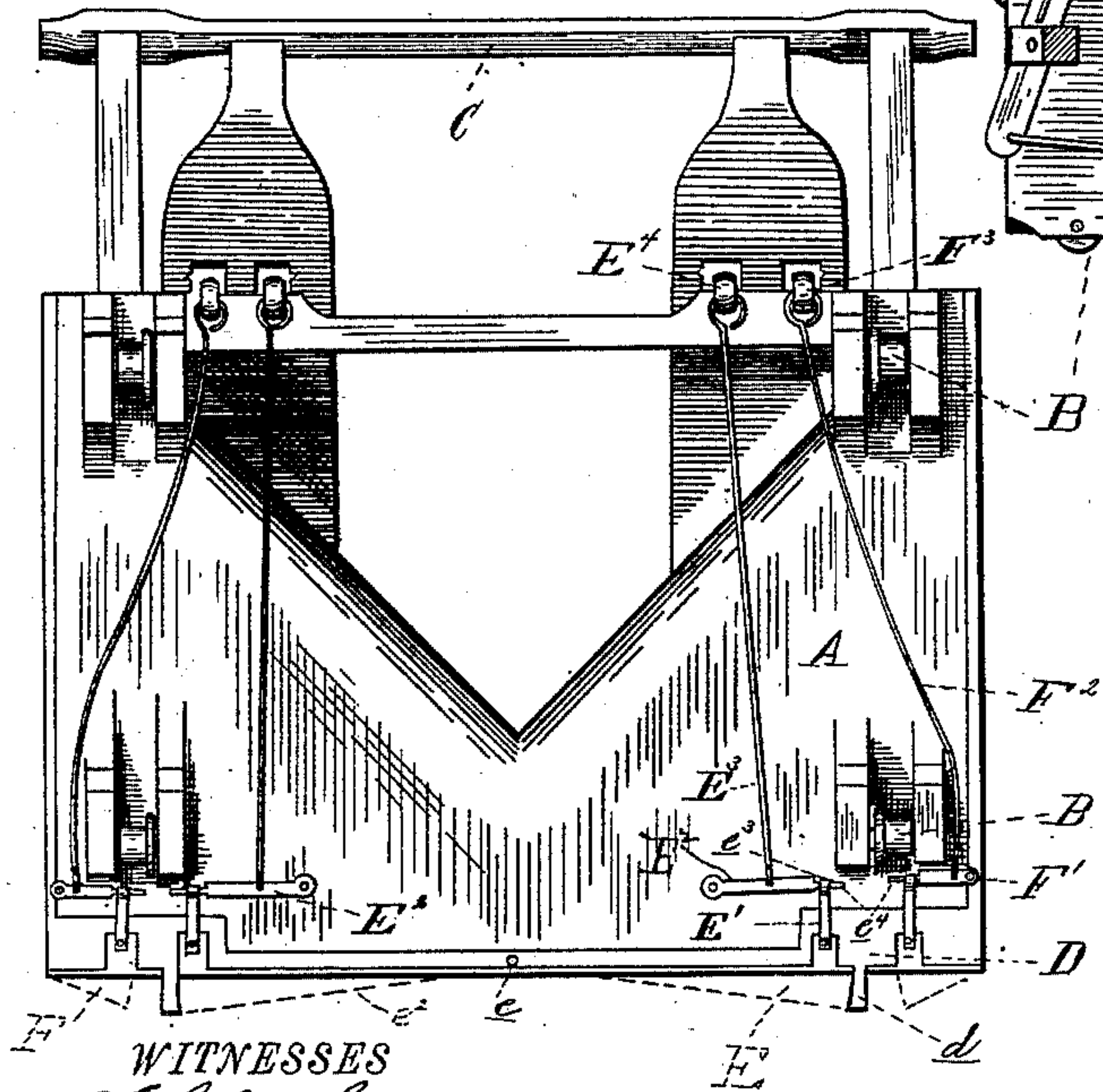
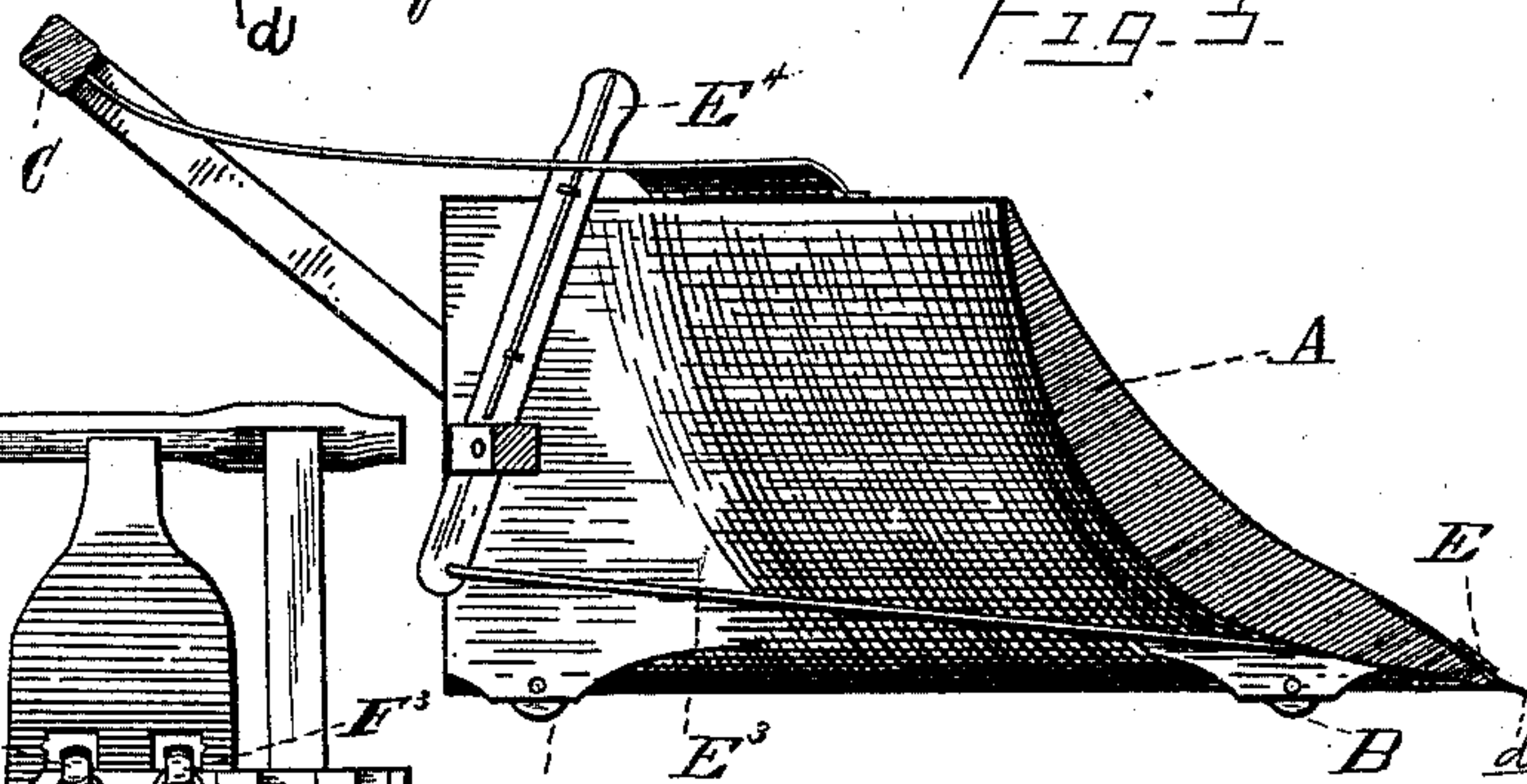


Fig. 2.



WITNESSES
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Fig. 3.



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SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 426,435, dated April 29, 1890.

Application filed December 14, 1889. Serial No. 333,707. (No model.)

To all whom it may concern:

Be it known that I, OWEN A. CLARK, a citizen of the United States, residing at Fife Lake, in the county of Grand Traverse, State of Michigan, have invented a certain new and useful Improvement in Snow-Plows; and I declare the following to be a full, clear, and exact description of the invention, such as it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

In cleaning snow from railroad-tracks it has heretofore been customary, after the large engine snow-plow has gone over the track and cleaned off the bulk of the snow, to send a gang of men along after the large plow with shovels to clean away the balance of the snow which has been left by the large plow.

My invention is designed to produce a novel, simple, and efficient hand-plow which may be easily pushed along on the track, and which will effectually clean the snow not only down to a level with the track-rails, but adjacent to the rails on both sides.

The invention consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my apparatus. Fig. 2 is a view of the under side of the apparatus. Fig. 3 is a vertical section.

In carrying out my invention, A represents the main frame or body of my plow, shaped like the ordinary snow-plow, with the usual V-shaped back to throw the snow out beyond the rails.

B are the wheels, mounted in the under side of the frame and adapted to run on the track-rails.

C is a handle by which the apparatus may be pushed along over the rails.

In practice I have found that ordinarily two men are all that are required to operate the apparatus.

D are plates attached to the front edge of the frame directly in front of the wheels and over the rails. Each plate is provided with a projection *d*, adapted to project down adjacent to the inner side of the rail, and, it being just the width of the flange of the rail-

way-wheel, it can travel along just where the flange would. These projections thus serve to not only clean the snow away adjacent to the inner side of the rail, but they serve to clean out the frogs and between the guard-rails at switches, &c., thus clearing the space wherever the plow travels for the flange of the wheels.

E are what may be termed "scrapers." Each of these scrapers has one end pivoted about the center of the front edge of the frame, as at *e*. From this pivoted end each scraper widens out, as shown, the outer end *e'* being close to the plates D. Thus, when the outer end is thrown out, its front edge *e''* will be flush with the front edge of the projection *d*, and the snow will be thoroughly cleaned from the rail in toward the center. As before stated, these scrapers E have the inner ends pivoted, so that the outer ends may be thrown out or in, as desired. Thus in a clear track the scrapers will be out; but when a crossing or a switch, &c., is reached, the scrapers may be thrown in out of the way. This movement of the scrapers may be obtained in various ways, the mechanism shown being a convenient one. Attached to the under side of the outer end of each scraper is the arm *E'*, having on its end the eye *e'''*. Into this eye is inserted the free end *e''''* of the lever *E''*, the other end being pivoted to the frame. Connected with this lever *E''* is the pitman *E'''*, which extends back and is engaged in the lower end of the operating-lever *E''''*, the upper end of said operating-lever projecting up adjacent to the main handle C, so that it can be easily operated by the man who is pushing the machine.

F are what may be termed the "side scrapers," and are designed to clean the snow for a foot (more or less) outside of the track-rails. These side scrapers have their outer ends pivoted to the front edge of the main frame, as at *f*, and their inner ends adjacent to the plates D and movable in or out. They may be operated in the same manner as the main scrapers by the operating-levers *F'*, pitman *F''*, and lever *F'''*.

It will thus be seen that by means of my apparatus, on a clear open track without switches, crossings, &c., all snow above the level of the rails will be thoroughly cleaned

off and thrown aside, and that the snow immediately adjacent to the rails will be cleaned off below the level of the rails, and that even where there are switches, frogs, &c., the snow will be cleaned off down to the level of the rails, and the snow adjacent to the inner side of the rails where the wheel-flange travels will be thoroughly cleaned out.

Of course, if desired, the apparatus might be made in the form of a hand-car, or it might have any self-propelling mechanism on it, without departing from the spirit of my invention, which contemplates, broadly, the provision of mechanism whereby snow may be cleaned away from the rails and below the level of the rails.

What I claim is—

1. In a snow-plow, the combination, with the wheeled frame A, of the plates D, secured thereto and having the projections *d*, to extend down adjacent to the inner sides of the railway-rails to clear the snow inside the rails, from frogs, and between guard-rails at switches, the scraper-plates E, pivoted at their inner ends and having widened outer ends movable in the arcs of circles in juxtaposition to the said projections and adapted to be brought at their front edges flush with the forward ends of the projections, and means for swinging the widened ends of the scraper-plates, substantially as described.

2. In a snow-plow, the combination, with the wheeled frame A, of a pair of pivoted swinging scraper-plates at each side of the frame, with the plates of each pair arranged, respectively, to extend near the inside and outside of a railway-rail, with means for

swinging all the scraper-plates forward and backward relatively to the line of movement of the wheeled frame, substantially as described.

3. In a snow-plow, the combination, with the wheeled frame, of a pair of swinging scraper-plates E, pivoted at their inner ends and having their outer ends arranged to move in the arcs of circles in juxtaposition to the insides of the railway-rails, a pair of pivoted swinging scraper-plates arranged, respectively, to move near the outside of the rails, and means for independently swinging the two sets of scraper-plates, substantially as described.

4. In a snow-plow, the combination, with a wheeled frame A, of two projections *d d*, arranged to travel, respectively, at the insides of the railway-rails, and two swinging scraper-plates E F, pivoted at opposite sides of each one of the said projections to travel at opposite sides of the rails, substantially as described.

5. In a snow-plow, the combination, with the main frame A, of movable scrapers E F, pivoted to the front edge of said frame, mechanism for throwing said scrapers into or out of operation, and the plates D, also attached to the front edge of said frame, said plates provided with the projections *d*, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

OWEN A. CLARK.

Witnesses:

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MARION A. REEVE.