

No. 695,781.

Patented Mar. 18, 1902.

J. BAGLEY.
GRADER.

(Application filed Oct. 3, 1901.)

(No Model.)

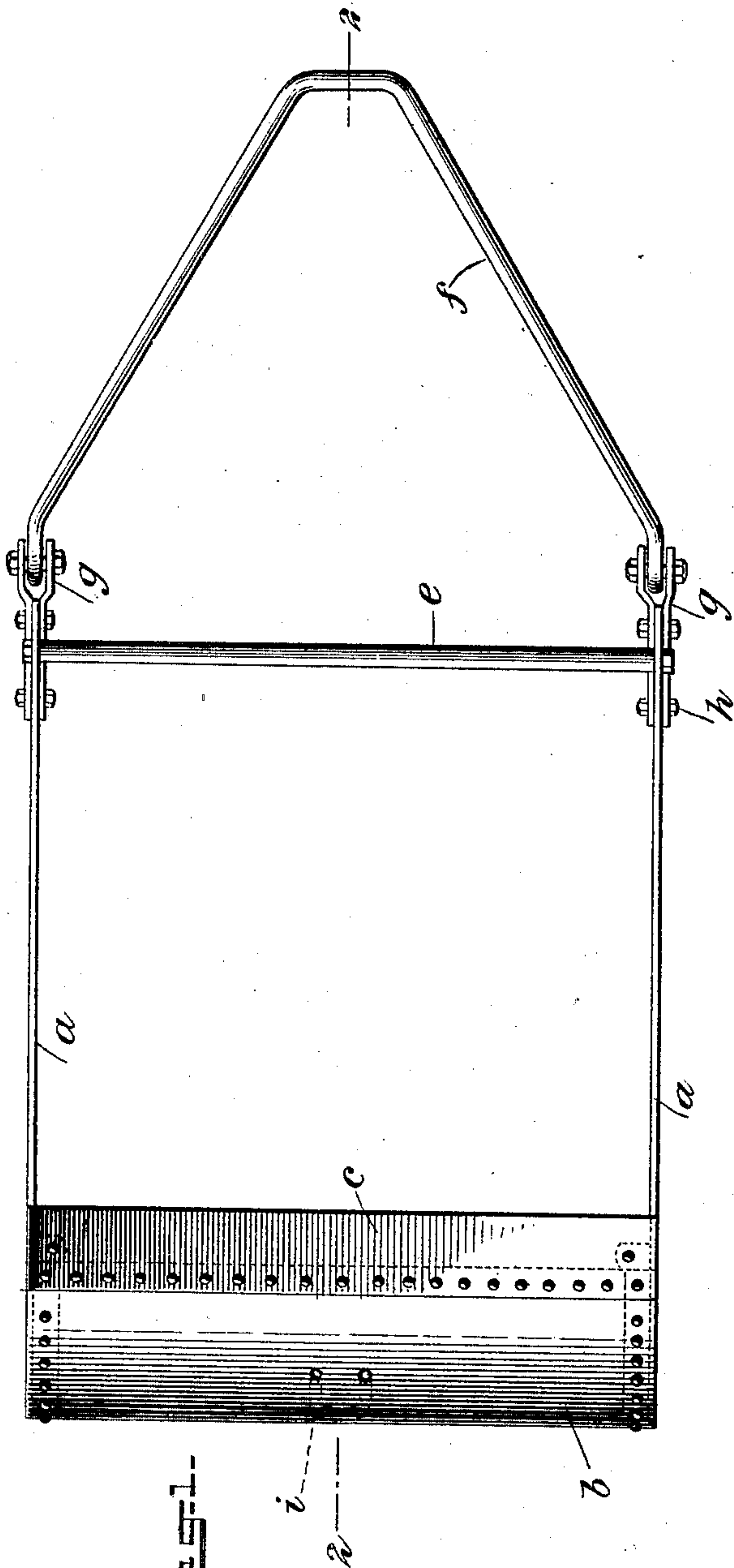


Fig. 1.

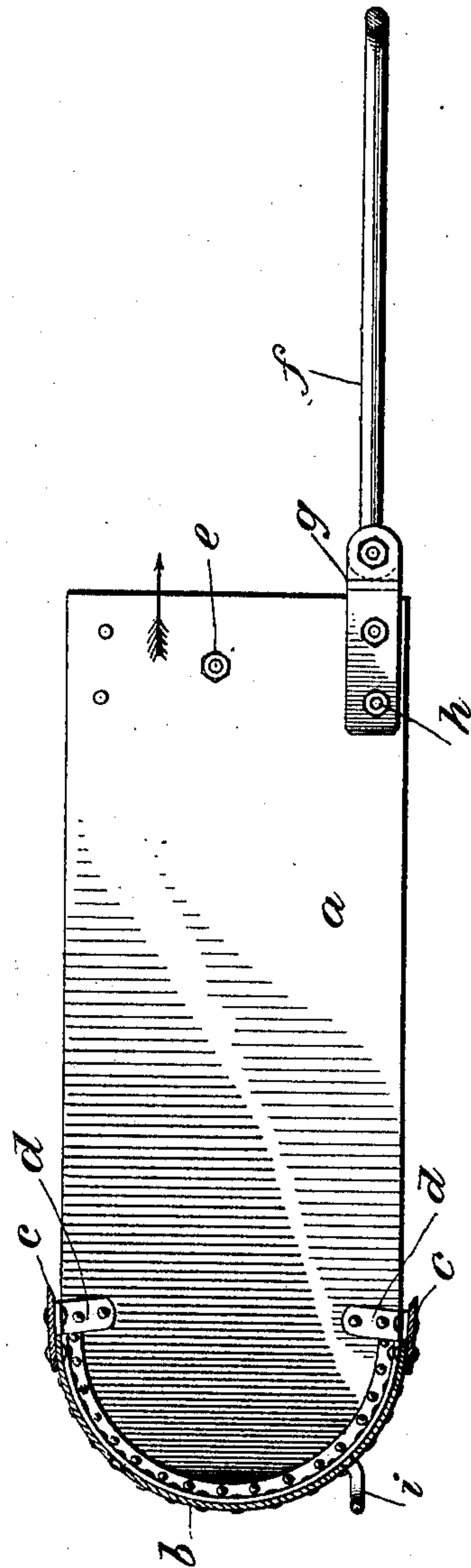


Fig. 2.

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JOHN BAGLEY, OF TACOMA, WASHINGTON.

GRADER.

SPECIFICATION forming part of Letters Patent No. 695,781, dated March 18, 1902.

Application filed October 3, 1901. Serial No. 77,387. (No model.)

To all whom it may concern:

Be it known that I, JOHN BAGLEY, a citizen of the United States, and a resident of Tacoma, in the county of Pierce and State of Washington, have invented a new and Improved Grader, of which the following is a full, clear, and exact description.

This invention relates to an apparatus for scraping and hauling earth, such as is commonly used for grading, and is also applicable in ditching and dredging; and it consists in certain features of construction whereby a more effective device is produced than those heretofore employed for the purposes above stated.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a plan view of a grader embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

The grader is made up of two side plates *a*, which lie in vertical planes parallel to each other and are imperforate to prevent the escape of earth to the sides of the device. To the rear ends of the side plates is fastened, by riveting or otherwise, the end wall or bucket *b* of the grader. This is constructed of a sheet of metal curved around a horizontal axis and presenting the concave side at the front of the grader. At each transverse edge the end plate or bucket *b* carries a scraper-blade *c*, these blades extending transversely between the side plates *a* and being set with a slight inclination outward to cause them to take hold on the ground. The blades *c* are fastened along their length to the edges of the bucket *b*, and at their ends they are joined by brackets *d* to the side plates *a*. Between the front ends of the side plates *a* extends a cross-brace *e*, holding them rigidly together.

f indicates a bail which is capable of connection with the front ends of the side plates *a*, adjacent to either edge thereof, by means of clevis-like fixtures *g*. These fixtures *g* are

held removably in place by bolts *h*, fitting in holes formed in the side plates, as shown.

To the bail *e* is connected the draft mechanism, which may be actuated by power of any sort. For attaching to the grader the draft mechanism for hauling the grader backward a staple *i* is provided, and this may be removably attached to the rear side of the bucket, near either edge thereof, through holes formed in the bucket at the proper points.

In using the apparatus it is adjusted as in Fig. 2 and drawn over the ground in the direction of the arrow. The lower blade *c* scrapes up earth, and this as it gathers in the bucket *b* is borne along with the grader. When the end of the haul is reached, the grader is drawn back by the draft devices attached to the staple *i* and a new drag or haul is made. When one blade becomes dull and worn, the fixtures *g* and *i* may be changed to their other positions and the grader reversed; also, owing to the construction employed the blades may be readily removed for repair. It will also be understood that the scraper may be made in various sizes, according to the nature of the work to be performed.

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

1. A grader, having vertical side plates, means rigidly connecting their front ends together, a rear end plate extending between the side plates and curved around a horizontal axis presenting the concave side to the front of the grader to form a bucket, blades extending along and secured to the longitudinal edges of the rear end plate, brackets fastened to the ends of the blades and to the side plates at points adjacent thereto, and draft devices adjustably connected to the grader, for the purpose specified.

2. A grader, having vertical side plates, the top and bottom edges of which extend essentially parallel to each other, thus giving the plates uniform width, means connecting the front portions of the side plates together, a rear end plate extending between the side plates and curved around a horizontal axis presenting the concave side to the front of the

grader to form a bucket, the top and bottom edges of the rear end plate lying approximately in the plane of the top and bottom edges of the side plates, and draft devices capable of attachment to the front portions of the side plates adjacent to either edge thereof, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN BAGLEY.

Witnesses:

EDWARD COOKINGHAM,
E. M. HAYDEN.