

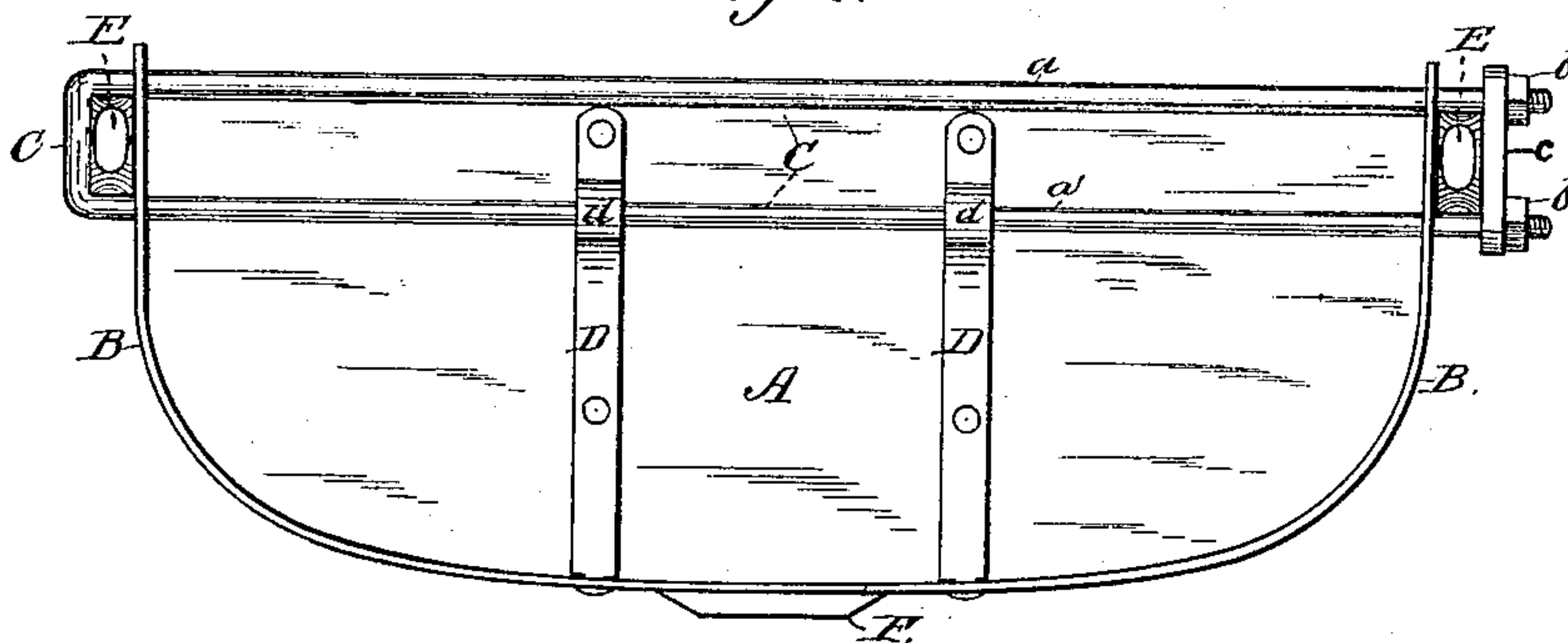
(No Model.)

W. T. McLEAN.  
Earth Scraper.

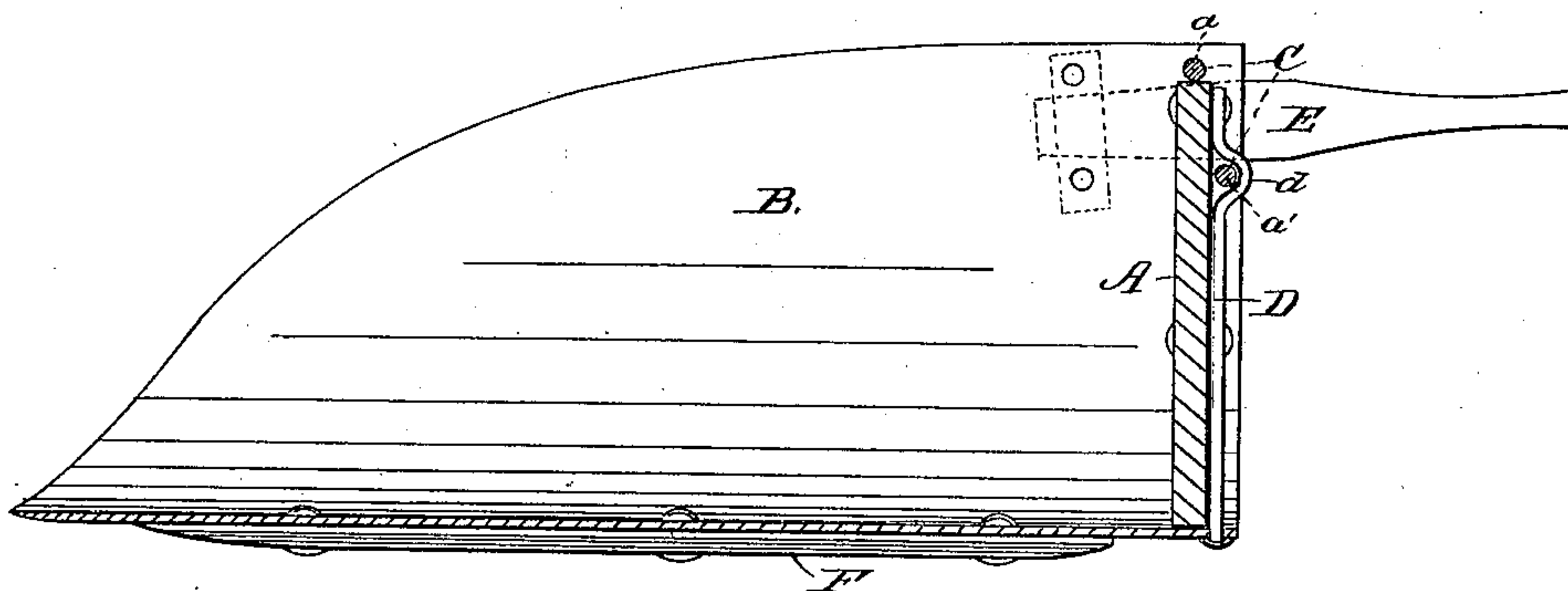
No. 230,797.

Patented Aug. 3, 1880.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM T. McLEAN, OF SIDNEY, OHIO.

## EARTH-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 230,797, dated August 3, 1880.

Application filed June 23, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. McLEAN, of Sidney, in the county of Shelby and State of Ohio, have invented a new and useful Improvement in Earth-Scrapers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in the class of earth scrapers or scoops having a thin metal body, formed preferably of rolled sheet-steel, and a wooden back, which is secured to the body by means of clamps, &c.

The improvement consists in the construction and arrangement of the devices for securing the wooden back to the steel body of the scraper, and in providing the latter with a single longitudinal steel wearing-piece or shoe, which is arranged centrally, and beveled on the sides and front end, as and for the purpose hereinafter specified.

In accompanying drawings, forming part of this specification, Figure 1 is a rear view of the scraper, and Fig. 2 a longitudinal section.

The wooden back A is secured to the steel body B of the scraper by means of the double horizontal brace and tie rod C and the vertical braces D. The brace and tie rod C consists of two straight parallel parts, *a a'*, which are formed in one piece, which is bent or looped at the middle. The rod is arranged so that one part, *a*, extends along the upper edge of the wooden back A, and the part *a'* a short distance below such edge, whereby it affords both protection and support to the back, as will be readily understood.

Nuts *b b* are screwed on the threaded ends of the rod C, and serve to clamp the back A firmly between the sides of the body B of the scraper, and also to secure the handles E, one of which is held in the loop of the rod C and the other by a yoke or cross-bar, *c*, that connects the ends of the rod.

The vertical braces D are metal bars, which are riveted to the wooden back A, and provided with loops *d*, to receive the lower part, *a'*, of the double tie-rod C, while their lower ends are reduced in size and pass through and are upset or riveted on the steel body B. Thus the bars D brace and strengthen the back A

transversely, and also serve to hold the bottom of the body B snugly against the lower edge of the back A.

Taken together, the double rod C and bars D constitute a light but strong compound brace and tie for the back of the scraper.

The shoe or rib F is constructed of steel, and is arranged lengthwise of the body B of the scraper and in the center of same. It is also tapered or thinned toward the forward end or point and beveled on the sides, so that it will have as little friction as possible with the earth. It receives a large share of the wear incident to use, and proportionally relieves the adjacent portions of the bottom of the scraper, while it adequately strengthens the latter at the point where most required. Its central position or location and the absence of side ribs or shoes enable the operator to easily rock the scraper laterally or to hold it tilted laterally while scooping the earth. Moist or other adhesive soil will not adhere to it or to the contiguous parts of the scraper.

I am aware a single tie-rod and more than one shoe or bottom rib have been employed.

What I claim is—

1. In an earth-scraper, the combination, with the wooden back and flexible metal body, of the double tie and brace rod, which is arranged horizontally with one part, *a'*, in rear of said back, and the screw-nuts applied to its ends, as shown and described, for the purpose specified.

2. The body of the scraper provided with a single wearing piece or shoe, which is attached centrally and longitudinally to its bottom, and beveled at the front end and on its sides, as shown and described, for the purpose specified.

3. In an earth-scraper, the combination of the double tie-rod C and nuts *b* and the vertical brace-rods D, having loops, as specified, with the wooden back A, the flexible metal body B, and handles E of the scraper, all arranged substantially as shown and described.

WM. T. McLEAN.

Witnesses:

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