

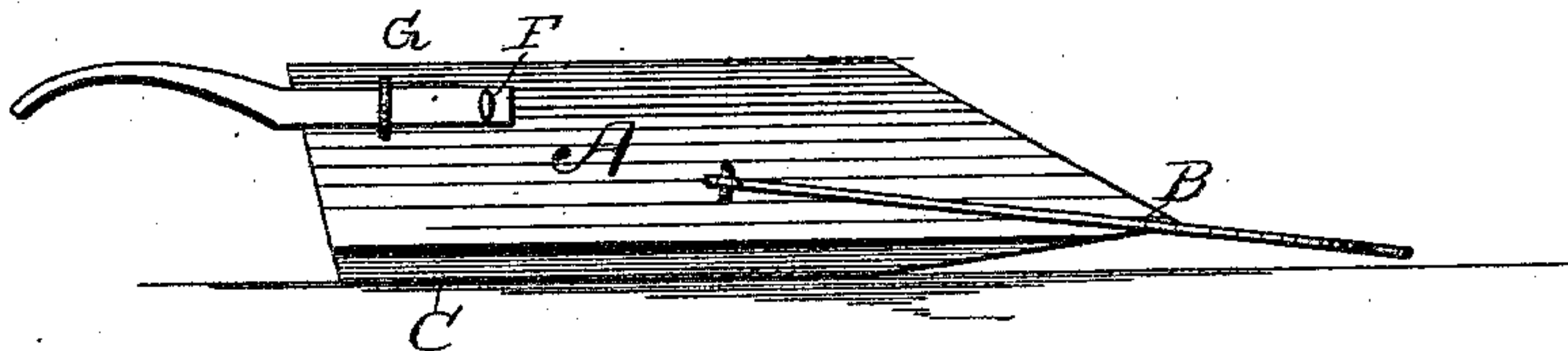
(No Model.)

D. HARPER.  
EARTH SCRAPER.

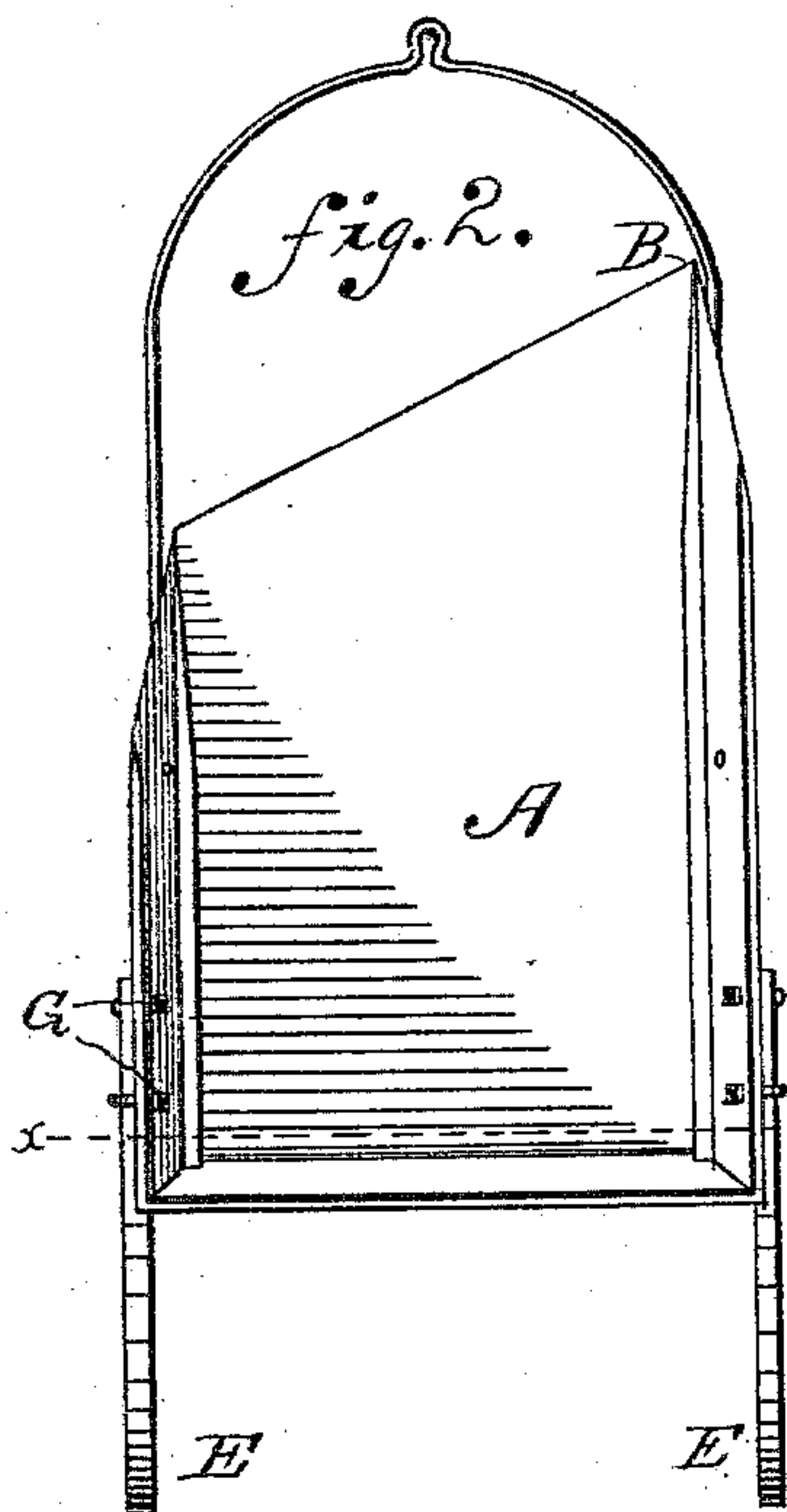
No. 303,154.

Patented Aug. 5, 1884.

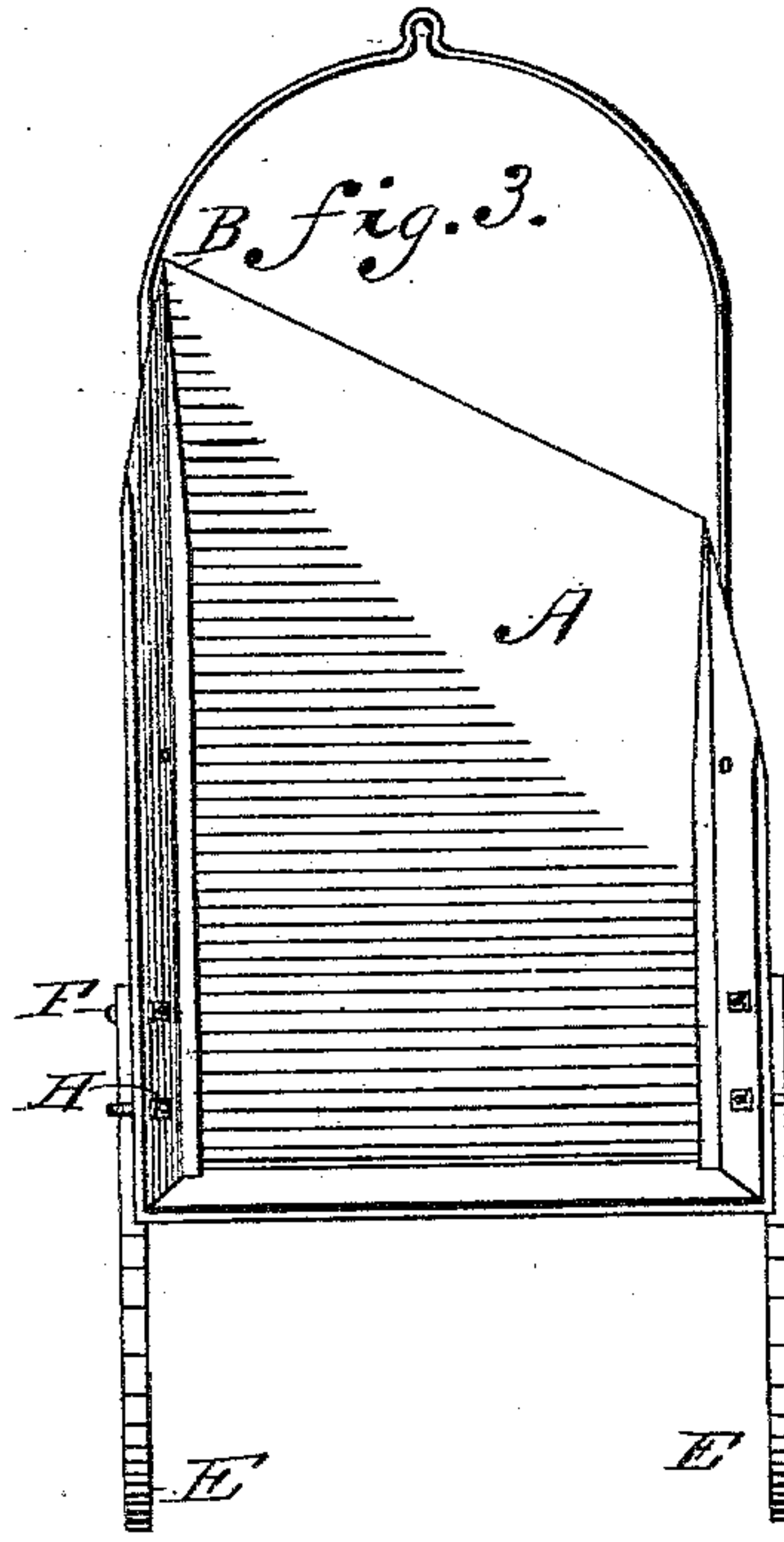
*fig. 1.*



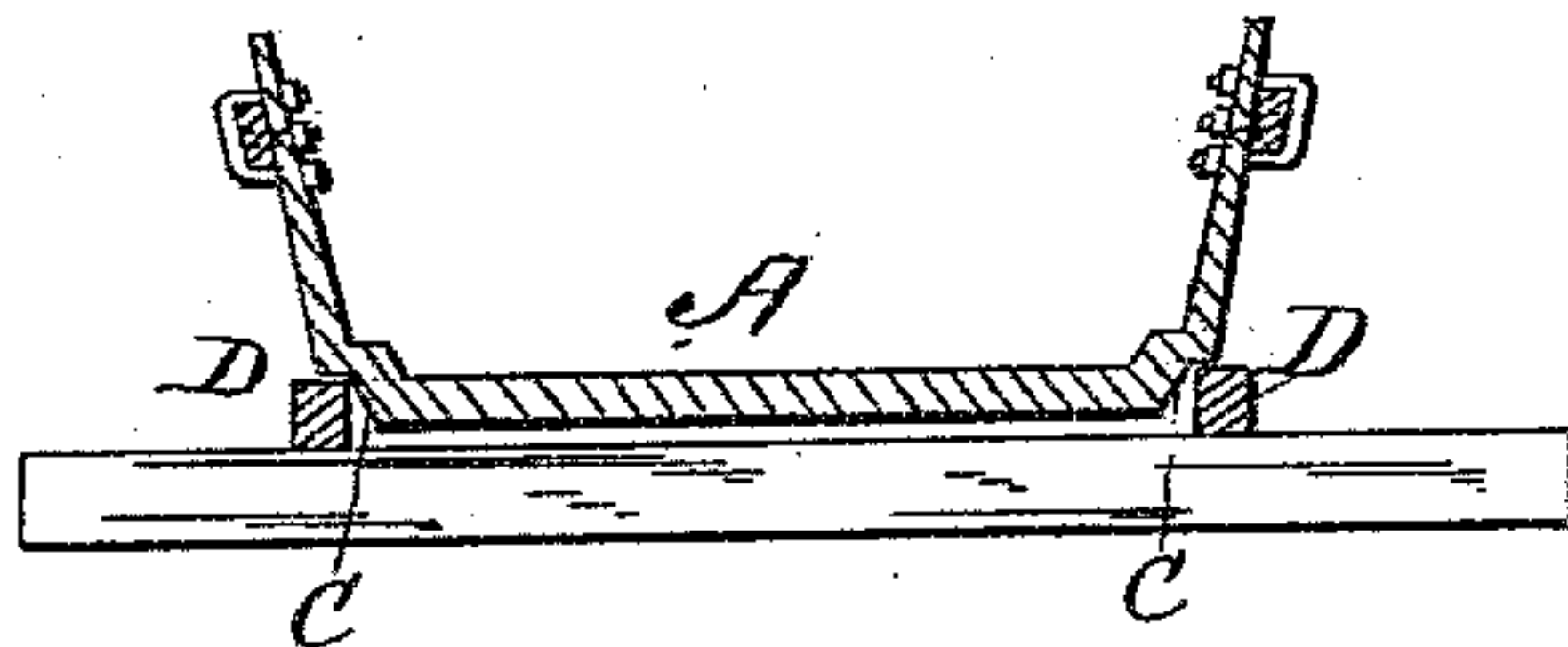
*fig. 2.*



*fig. 3.*



*fig. 4.*



WITNESSES:

*N. B. Brown*  
*W. X. Stevens.*

INVENTOR:

*David Harper*  
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# UNITED STATES PATENT OFFICE.

DAVID HARPER, OF JONESBOROUGH, ARKANSAS.

## EARTH-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 303,154, dated August 5, 1884.

Application filed October 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID HARPER, a citizen of the United States, residing at Jonesborough, in the county of Craighead and State of Arkansas, have invented a new and useful Improvement in Earth-Scrapers, of which the following is a specification.

My invention consists in the construction and combination of parts forming an earth-scraper, hereinafter described and claimed.

Figure 1 is a side elevation of my scraper. Figs. 2 and 3 are plan views of the same made right and left hand, and Fig. 4 is a cross-section thereof on bridge-rails.

A represents the body of the scraper, having sides a little flaring from vertical planes, slanted forward and sharpened to act as plow-shares. The bottom is flat on the principal area of its under side, its forward portion rising like a sled-runner for the same purpose. The forward edge is sharp and slants from one side to the other, after the manner of a plow, to form a single point, B, to enter the ground in advance of the rest of the scraper, to loosen up the earth just as a plow does, while the scoop portion immediately following receives the earth so loosened. The body of the scraper may be made of iron and its point and edge faced with hardened steel, like a plow, or the whole scraper-body may be steel. The side lower corners of the body are each formed with a corner groove, C. These two grooves are parallel to each other, their upper faces serving as the tread on which the scraper bears to slide on the rails D, and the side walls serving, like flanges of car-wheels, to keep the scraper upon the rails. The rails may be

framed together by means of cross-pieces to be quickly placed across a hollow, brook, ravine, or up a steep acclivity; or the rails may be separately laid and embedded into the ground to keep them the proper distance apart. Straight wooden bars answer this purpose. The ends of the bail or clevis enter the sides of the scraper, and are kept in place by means of cross-keys through them. The handles E are each secured by means of a single forward bolt, F, passing from the interior of the scraper out through the handle and a nut screwed on it, and a rear staple, G, clasp- ing over the handle to strengthen it by holding it together from splitting, the two ends of the staple passing into the scraper and secured by screw-nuts H.

What I claim as my invention, and wish to secure by Letters Patent, is—

1. A scraper-bowl having a point at one side of its forward end, as shown and described.

2. A scraper-bowl having a point at one side of its forward end, and the forward edge of its bottom slanting rearward from said point to the opposite side of the scraper-bowl, as shown and described.

3. A scraper-bowl having a point at one side of its forward end and a sharp side rising rearward from said point, as shown and described.

4. A scraper having its lower side corners grooved, as shown and described.

DAVID HARPER.

Witnesses:

C. ARNOLD,  
JOEL CONARD.