

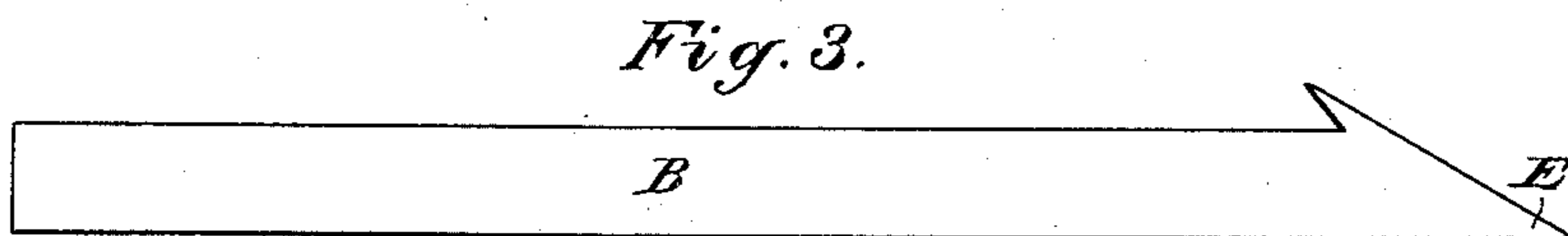
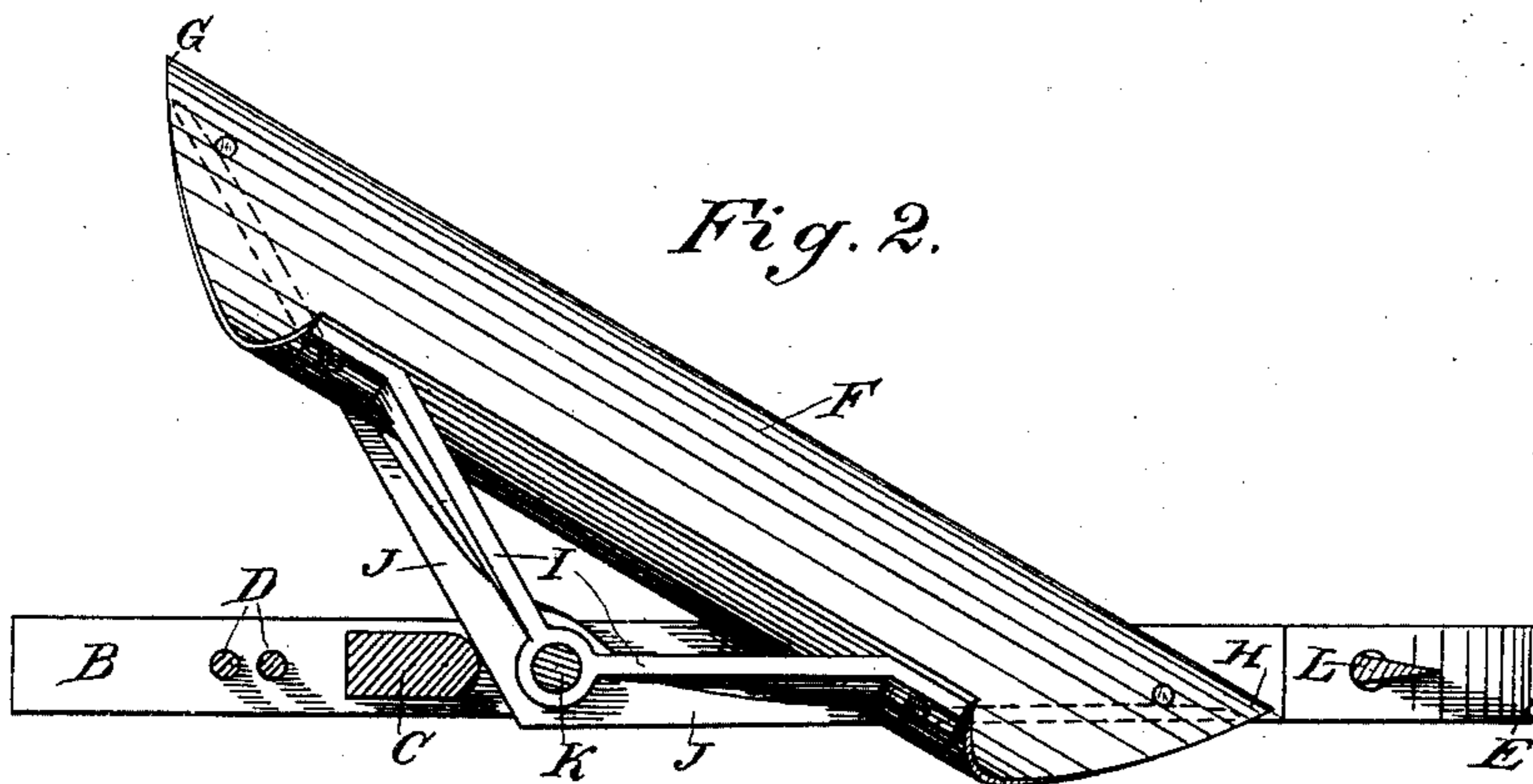
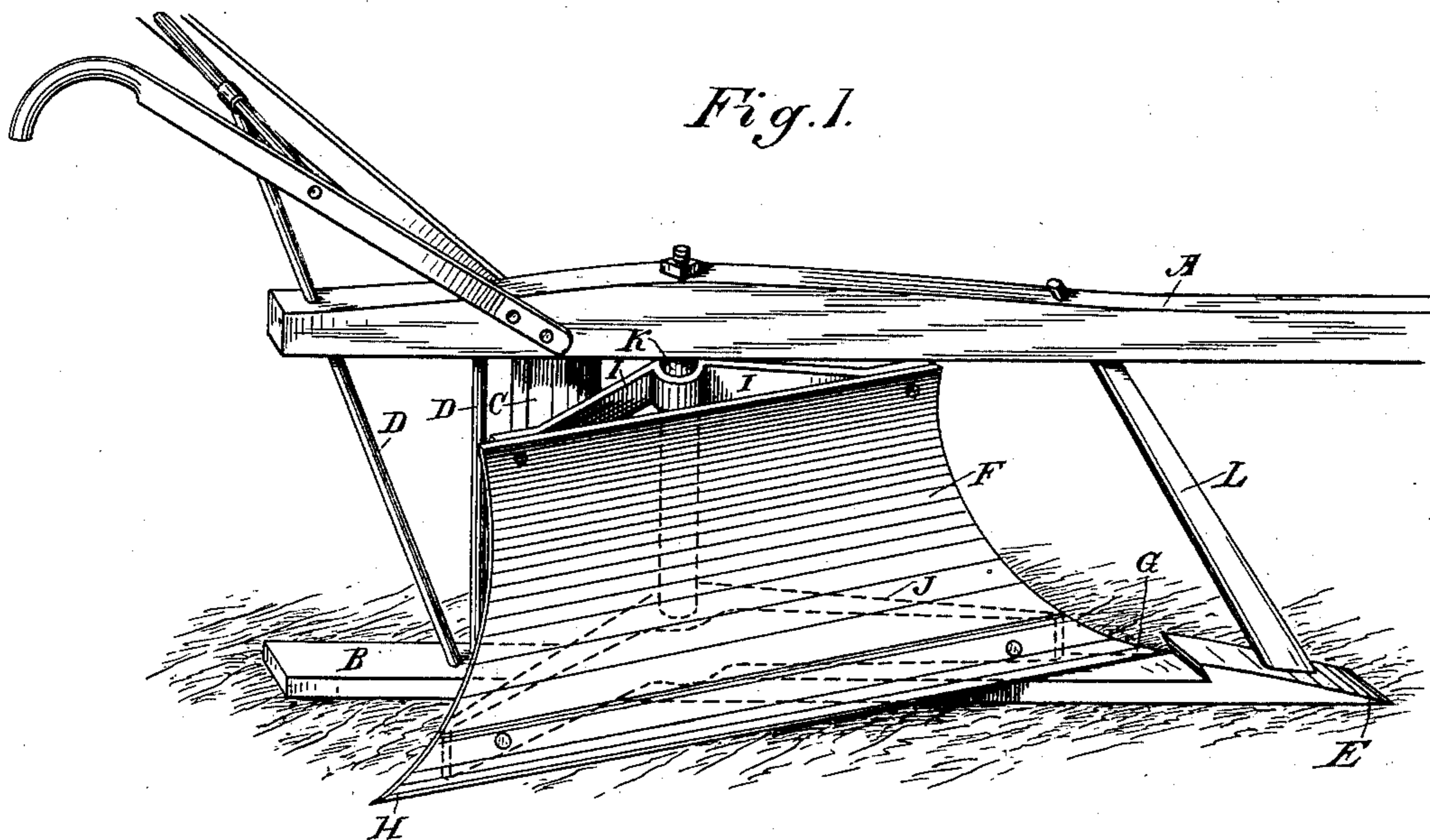
(No Model.)

E. CLARK.

SIDE HILL PLOW AND ROAD GRADER.

No. 375,802.

Patented Jan. 3, 1888.



Witnesses,
Geo. H. Strong
J. H. Morse.

Inventor,
Elisha Clark
By Dewey & Co.
attys

UNITED STATES PATENT OFFICE.

ELISHA CLARK, OF FELTON, CALIFORNIA.

SIDE-HILL PLOW AND ROAD-GRADER.

SPECIFICATION forming part of Letters Patent No. 375,802, dated January 3, 1888.

Application filed May 11, 1887. Serial No. 237,906. (No model.)

To all whom it may concern:

Be it known that I, ELISHA CLARK, of Felton, Santa Cruz county, State of California, have invented an Improvement in Side-Hill Plows and Road-Graders; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improved side-hill or reversible plow which may also be employed as a road-grader.

It consists of a plow-beam united to a land-side or shoe at the bottom by means of a vertical post or posts, and having the mold-board and plowshare supported in front of the post by a vertical shaft or spindle, about which it may turn so as to stand upon either side of the plow-beam and with either point toward the front to correspond with the plow-point, the latter being formed upon the front of the stationary shoe before described.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my plow, showing the mold-board upon one side and the plow acting as a right-hand plow. Fig. 2 is a plan view with the beam removed, showing the relative position of the parts and the plow reversed. Fig. 3 is a view of my additional shoe.

In the present case I have shown my plow in the single form, having the plow-beam A and a long shoe or landside, B, standing in line beneath the beam and united thereto by the vertical post C and holding-bolt D. The plow-point E is formed upon the front end of this shoe or landside and corresponds with either point of the mold-board when it is turned to connect with the point. The mold-board F is curved and formed in any suitable manner, having the points G and H at the opposite lower ends. To the upper rear part of the mold-board is bolted an iron frame, I, and to the lower part another iron frame, J, the ends of the two being bolted securely to the rear of the mold-board, so as to hold it. Through the central portions of these frames and behind the center of the mold-board a standard or spindle, K, passes, the lower end being secured to the shoe or landside, and the upper passing up through the plow-beam A, to which it may be secured by a nut, as shown. The mold-board then turns about this stand-

ard or spindle freely, so that either point may be swung around and stand in line with the plow-point E and act in connection with it to turn the soil upon the side to which the mold-board then corresponds. By swinging the mold-board about this central standard the other end coincides with the plow-point and the soil is thrown to the opposite side.

No fastening is necessary to hold the mold-board in place, as the pressure of the earth upon its front holds it without other assistance.

In order to properly divide the soil for the mold-board I employ a colter, L, which extends from the plow-beam down to the plow-point, being secured at both ends, and it then serves the additional purpose of a brace to strengthen the shoe or landside and prevent its being bent or twisted out of place by striking roots or stones. This is necessary because of the great distance from the vertical post which unites it with the plow-beam.

In order to make the connection between the point and the plow-beam so that the colter can be easily removed, a hole is made in the rear portion of the point, the lower part of which curves backward, and the lower part of the colter is formed with a sort of hook which enters this backwardly-curved opening, and, when the colter is turned up so that its upper end is in proper place with relation to the plow-beam, this hook holds the plow-point securely. The colter is then held at its upper end by the diagonal strap and bolts or other suitable means.

When it is desired to throw the furrow uphill, as it is impossible to prevent the plow from sliding downhill with the ordinary flat landside or shoe, I make a special shoe which, as is shown in Fig. 3, is of considerable depth, being as much as two or three inches, and this is fixed to the lower end of the vertical post in the same manner as the ordinary flat shoe. This holds the plow upon the soil and prevents its slipping sidewise, while at the same time it is held in a vertical position, thus throwing its furrow up the hill. When the plow is to be used for road-grading or similar work, it is made of considerable length and will throw the dirt off from an inclined surface, which can thus be very easily leveled and graded.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A reversible plow consisting of a beam, the landside or shoe standing in line below it
5 and rigidly connected therewith, having a single point formed upon its front end, in combination with a double-ended mold-board having its rear and central portion journaled upon a fixed vertical post extending from the plow-
10 beam to the landside or shoe, so that the mold-board may swing across the front of the landside to stand upon either side, with the points engaging a corresponding slot or groove made in the plow-point, substantially as described.
- 15 2. A reversible plow consisting of the beam, a shoe or landside standing parallel therewith and below it and rigidly united to it by means of the standard at the rear, and a colter having a curve at the lower end which enters the

plow-point formed on the front of the shoe, 20 while the other end is secured to the plow-beam, in combination with a mold-board having points at either end which may engage a groove or channel at the rear of the plow-point, and a vertical post extending from the 25 plow-beam to the shoe to which the rear central portion of the mold-board is journaled, so that it may swing across the front beneath the plow-beam to engage either of its points with the plow-point, the mold-board standing either 30 at the right or left of the beam, substantially as herein described.

In witness whereof I have hereunto set my hand.

E. CLARK.

Witnesses:

S. H. NOURSE,
H. C. LEE.