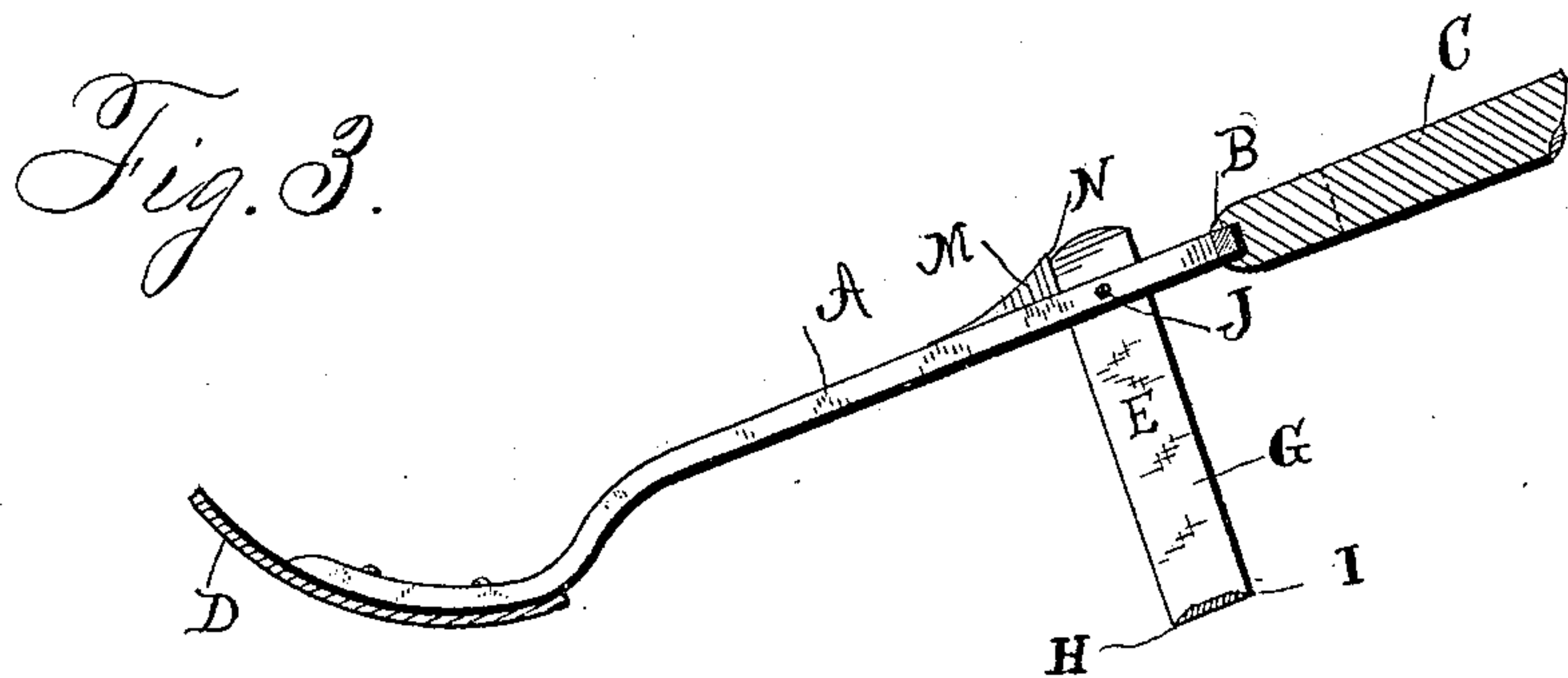
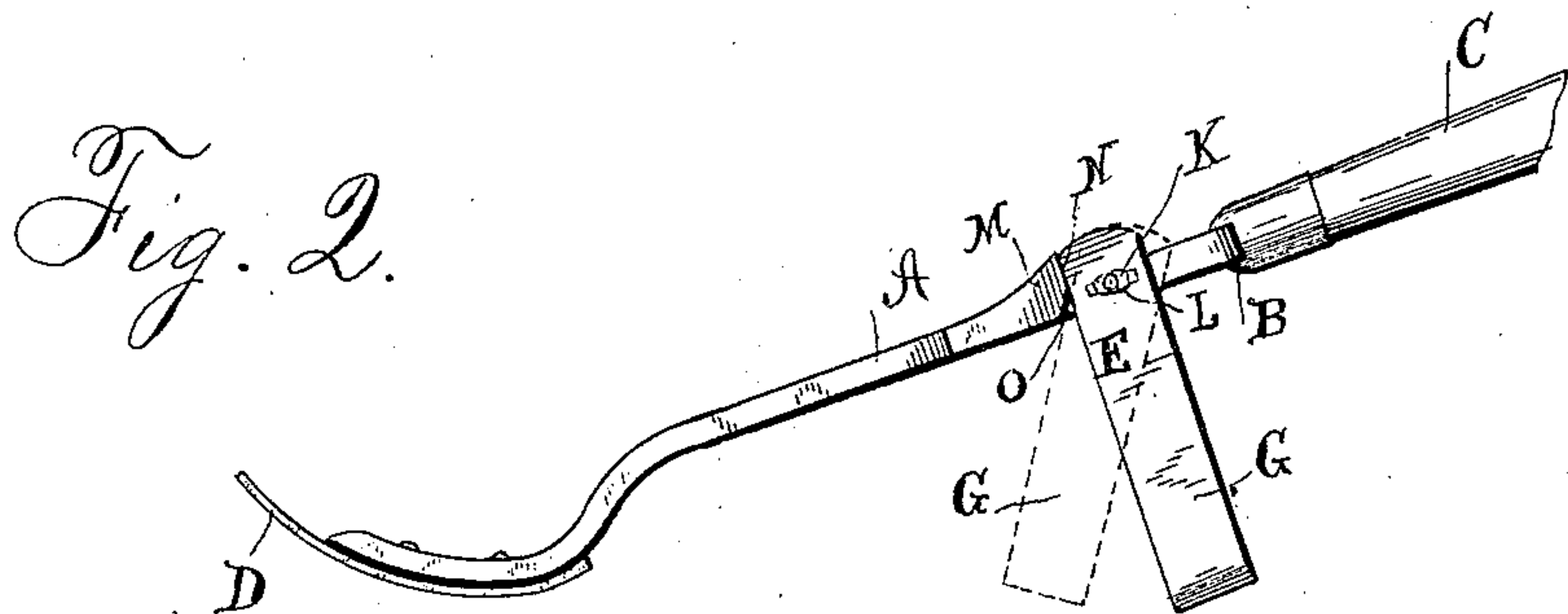
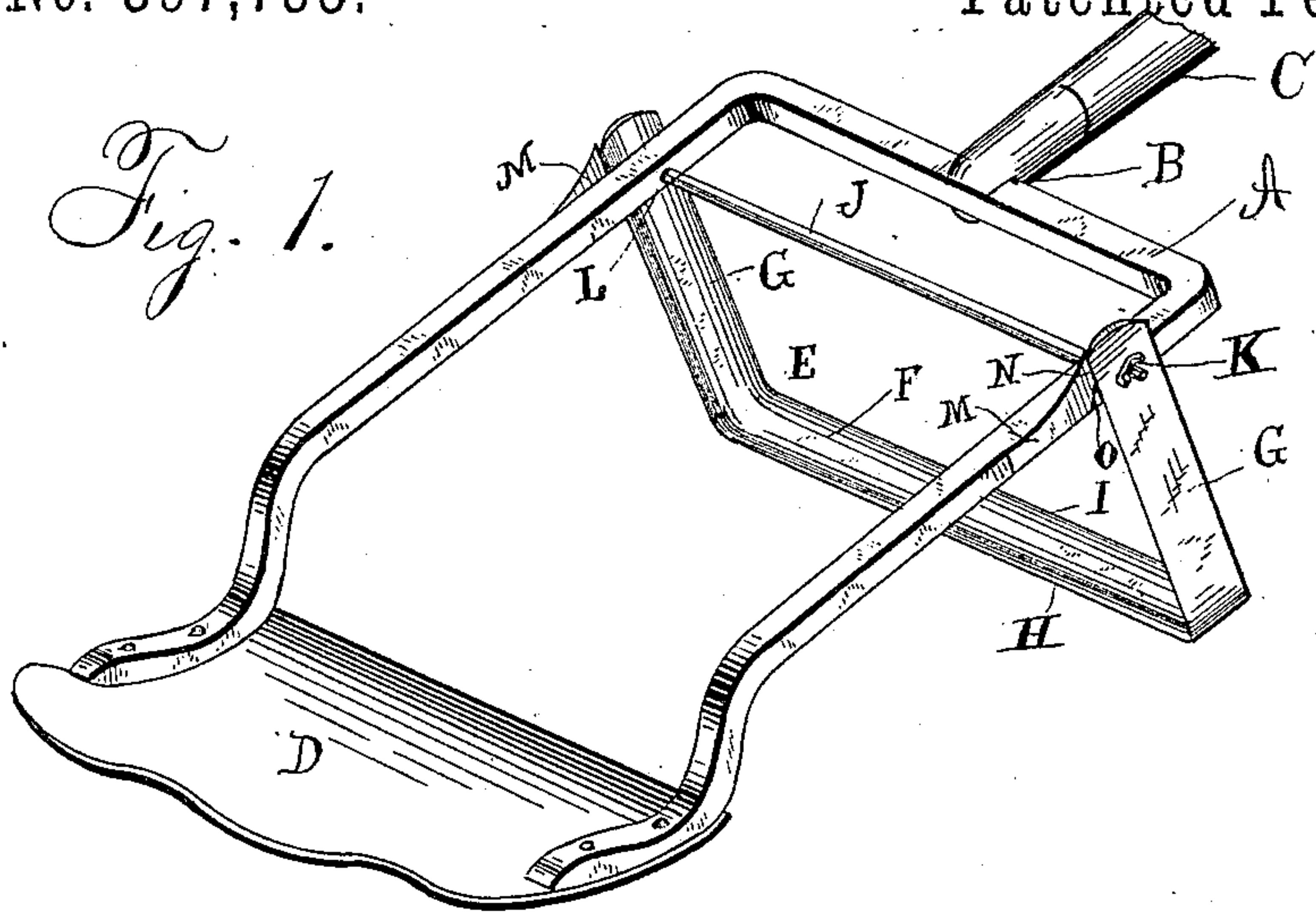


(No Model.)

J. B. MANSFIELD.  
WEEDING MACHINE.

No. 397,735.

Patented Feb. 12, 1889.



WITNESSES,

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# UNITED STATES PATENT OFFICE.

JAMES BIBBER MANSFIELD, OF MILLBRIDGE, MAINE.

## WEEDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 397,735, dated February 12, 1889.

Application filed September 24, 1888. Serial No. 286,214. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES BIBBER MANSFIELD, a citizen of the United States, and a resident of Millbridge, in the county of Washington and State of Maine, have invented certain new and useful Improvements in Weeding-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my new and improved weeding tool or machine. Fig. 2 is a side elevation of the same, showing the blade in full lines as it stands when the tool is being pushed forward and showing it in dotted lines as it stands when the tool is drawn back toward the operator; and Fig. 3 is a central longitudinal vertical sectional view of the implement.

The same letters of reference indicate corresponding parts in all the figures.

My invention consists in a new and improved machine or implement for cutting the weeds and grass, runners, &c., from among strawberry and other light plants growing in rows; and my invention will be hereinafter fully described and claimed.

Referring to the several parts by letters A indicates the metal frame of my new and improved tool or implement, which is formed at the center of its upper or rear end with the metal socket B, in which is secured the lower end of the handle C, this being a long wooden handle of the requisite length. The lower parallel ends of the frame A are bent down and then slightly curved upward, as shown, and to these lower curved extremities is bolted or riveted a curved metal plate, D, of thin light metal, the said curved plate being secured to the under side of the ends of the frame A. This metal plate D, and also the lower ends of the frame, is curved so that both its rear and front longitudinal edges rise above the ground, so that the curved plate will pass readily over the ground. This broad metal plate prevents the cutter-frame from sinking too deeply into the ground, as will be hereinafter seen.

E indicates the cutter-frame, which consists of a single blade, the ends G G of which are bent up at right angles to the horizontal main part F. This blade is beveled and sharpened on its inner side on both edges, so as to form the cutting-edges H I both at its front and back. This blade is secured to the upper end of the frame A by the long pivot-bolt J, which extends across through the upper part of the frame A, this bolt-rod having a head at one end and being threaded at its other end for the reception of a thumb-nut, K. The upper ends of the cutting-blade extend up outside of the frame A, and are formed with the perforations L L, through which the ends of the long pivot-rod pass, and the blade is thus pivotally secured to the upper rear end of the frame. Upon the outer side of the upper rear part of the parallel arms formed by the frame A are formed the metal stops M M, the upper half, N, of the rear ends of which lie parallel with the sides of the frame A, while the lower half, O, of their rear ends is inclined forward, as shown. Now the upper ends of the cutting-blade are pivotally secured to the sides of the frame A, so that when the implement is pushed forward over the ground by its handle C the cutter frame or blade will turn or swing back on its pivot-bolt, so as to bring the front cutting-edge of the blade into its best operative position, when the upper ends of the blade will come in contact with the upper half, N N, of the rear operative ends of the stops M M on the side of the frame A, and the blade will be thus held at the correct inclination to cut the weeds, grass, runners, &c., as the machine is pushed forward, as shown in full lines in Fig. 2 of the drawings. When the operator draws the implement back by the handle, the cutting-blade will swing forward at its lower end until the upper ends of its sides come in contact, and bears against the lower inclined half, O, of the rear ends of the stops M M on the sides of the frame A, and the cutter-blade will thus be held firmly in the position shown in dotted lines in Fig. 2 of the drawings, with its rear edge at the best angle to cut the weeds, &c., as the machine is drawn back by the operator. It will thus be seen that the device can be readily and rapidly used in cutting



the weeds, grass, &c., from among strawberry and other light plants growing in rows, as it can be propelled both forward and backward.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood.

It will be seen that the implement is simple and strong in construction, and can be manufactured at a comparatively small cost, while it is exceedingly efficient and convenient in operation. The cutter-blade, beveled and sharpened on both its front and rear edges, will cut in both directions—that is, both when the implement is pushed forward and drawn backward, which is exceedingly convenient in cutting weeds, runners, grass, &c., from among rows of light plants—such as strawberries, &c.—and by forming the stops and pivoting the cutter-frame, as shown, the blade will be enabled to swing into either position to cut in either direction. The curved metal plate secured to the curved lower ends of the frame A will support the forward end of the frame and cause it to pass readily over the ground, and will prevent the cutter-blade from sinking into the ground to too great a depth.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is— 30

1. In a weeding machine or implement, the combination of the light metal frame having an operating-handle and formed with the downwardly bent and curved lower ends, the light curved metal plate, the side stops formed at their rear ends, as described, the cutter-blade beveled and sharpened on both its front and rear edges, and the transverse pivot-rod, substantially as set forth. 35 40

2. In a weeding implement, the combination of the metal frame having the upper rear socket and the lower bent and curved ends, the light curved metal plate, the side stops, formed at their rear ends as described, the cutter-blade beveled on both its front and rear longitudinal edges, the transverse pivot-rod, and the wooden handle, substantially as and for the purpose set forth. 45

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses. 50

JAMES BIBBER MANSFIELD.

Witnesses:

EDWARD B. COOK,

WILLIAM FOSTER SMALL.