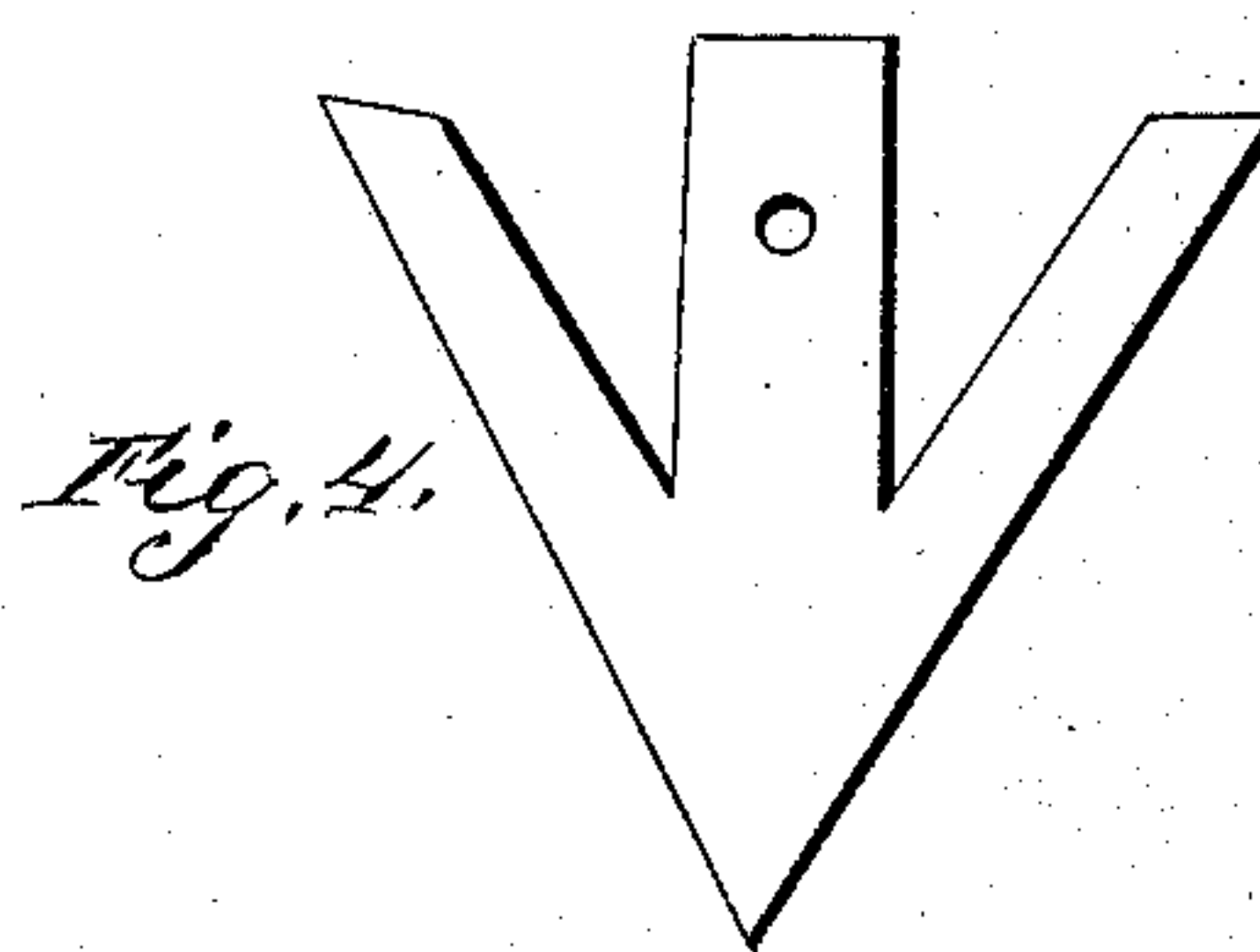
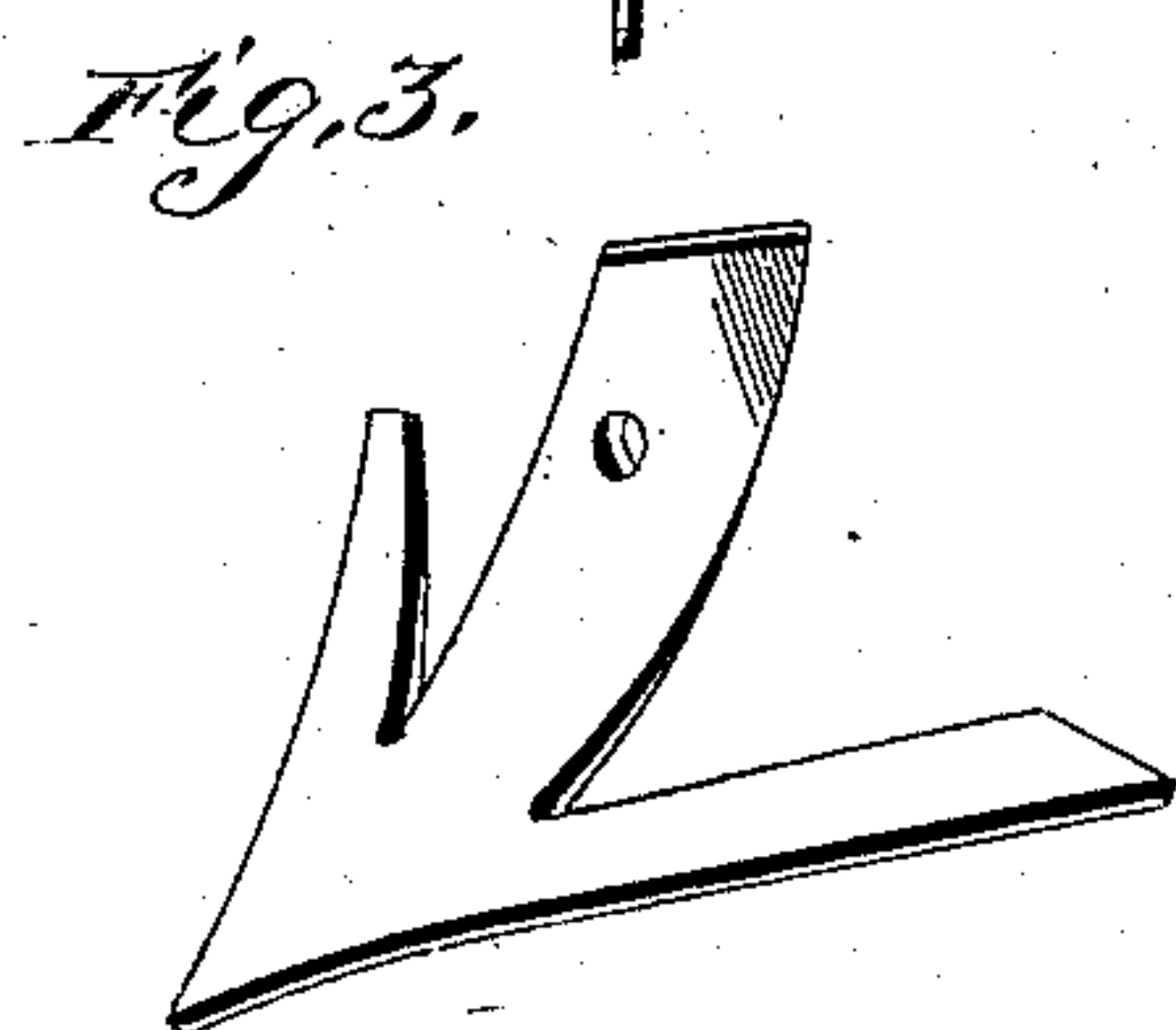
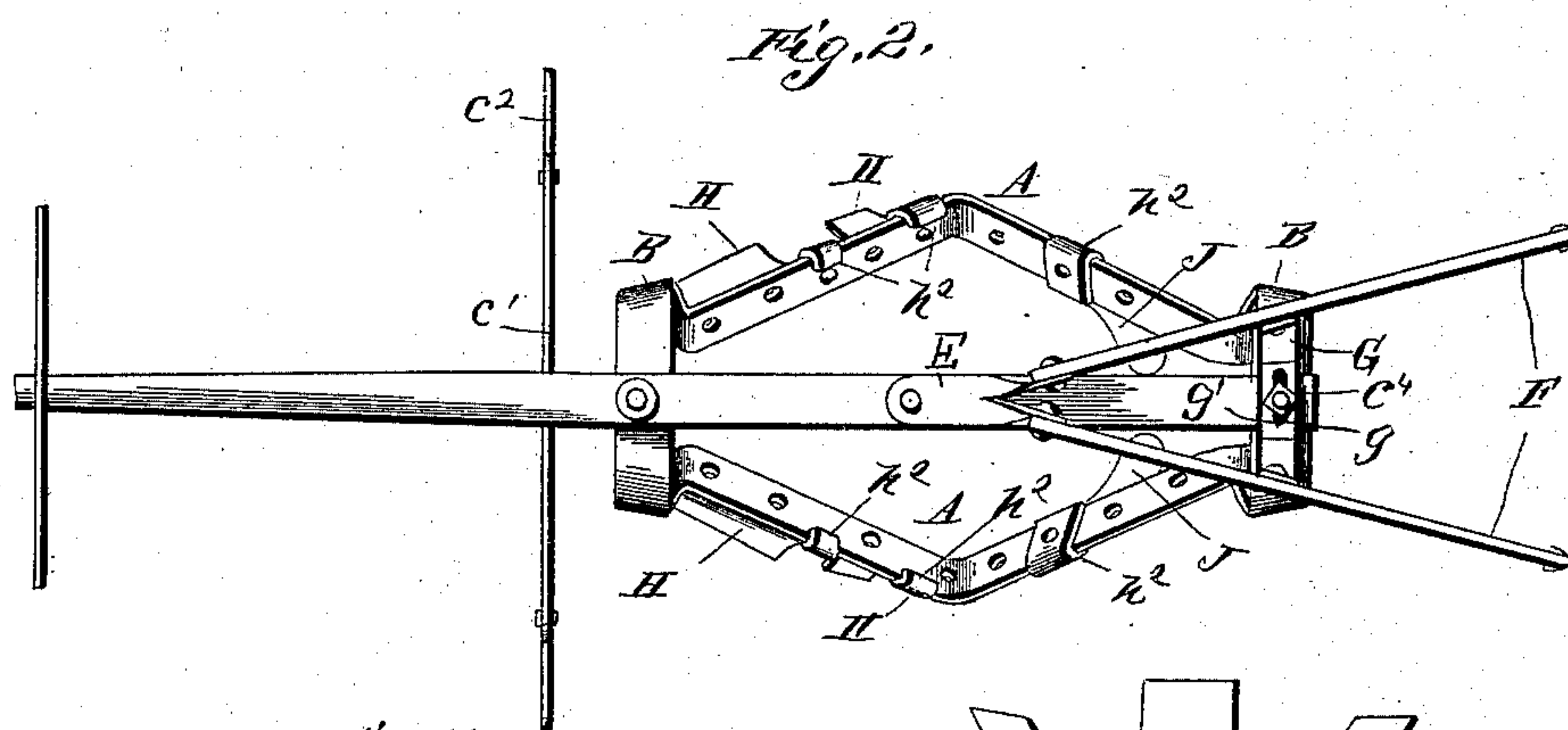
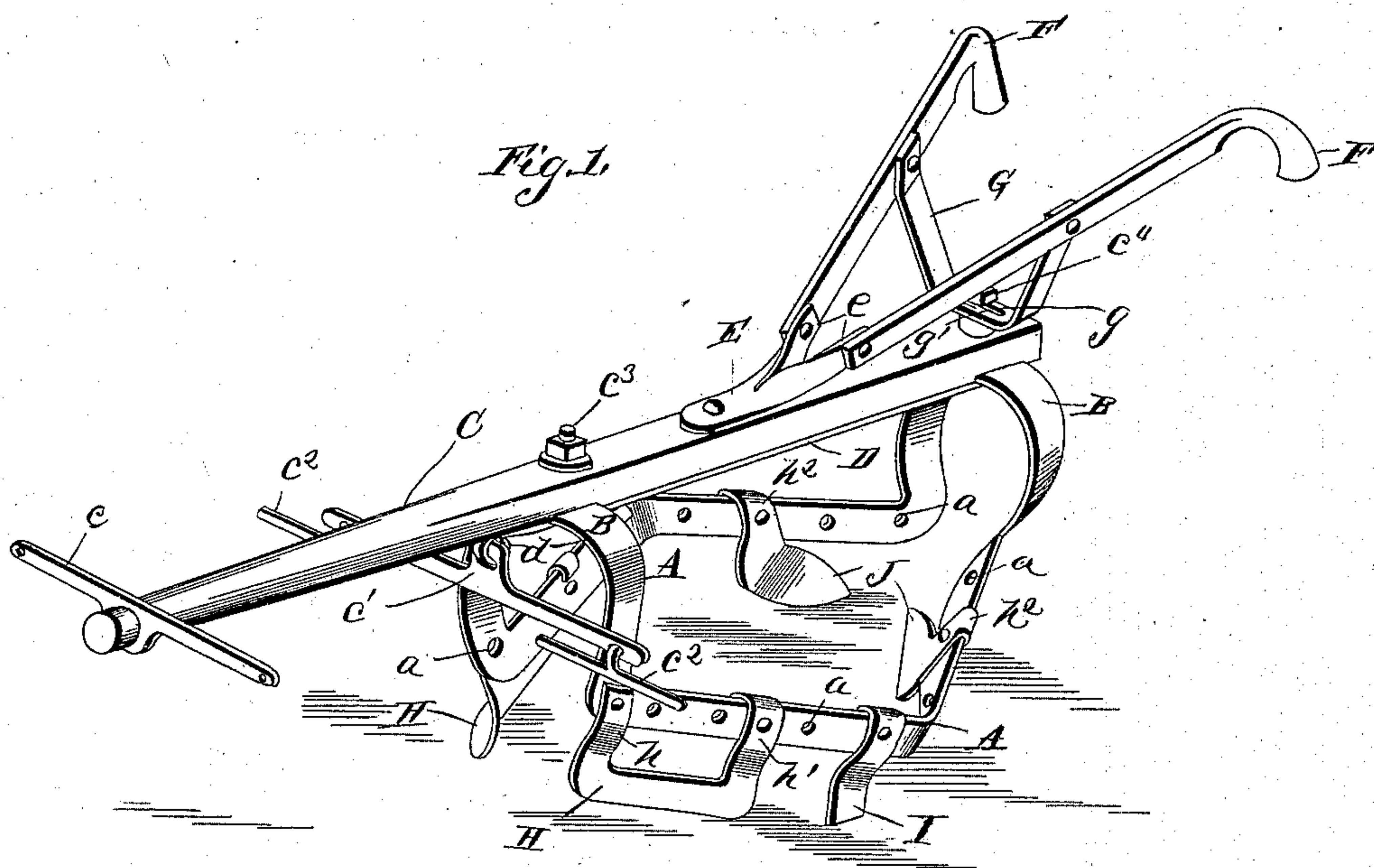


(No Model.)

M. B. GOOING.
DOUBLE SIDE HARROW AND CULTIVATOR.

No. 416,909.

Patented Dec. 10, 1889.



WITNESSES

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UNITED STATES PATENT OFFICE.

MARTIN BIRD GOOING, OF HAROLDTON, ARKANSAS.

DOUBLE SIDE HARROW AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 416,909, dated December 10, 1889.

Application filed August 15, 1889. Serial No. 320,885. (No model.)

To all whom it may concern:

Be it known that I, MARTIN BIRD GOOING, a citizen of the United States, residing at Haroldton, in the county of Crawford and State of Arkansas, have invented certain new and useful Improvements in Double Side Harrows and Cultivators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has relation to double cultivators; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a top plan view of the same, and Figs. 3 and 4 are detail views.

The body or frame of my cultivator is made of a bar of the best iron or steel or other strong material, and should be about one and one-half inch wide and three-fourths of an inch thick and from about ten to fourteen feet in length, and its two ends should be welded solidly together, making it into an endless band or hoop, and then two sides of the same are bent into elbows A, forming a diamond-shaped base, the two ends of said elbows approaching each other, but not meeting, and the two other sides should be bent up into U-shaped bows B B. The front and rear parts of said elbows A A are horizontally perforated, so that any sufficient number of plows, in any shape desired, may be bolted to the same for the cultivation of cotton or corn or other purposes. On the apex of said U-shaped bows B B is secured a tongue C, provided with a breast-brace c. Against the under face of said bows, and immediately under the said tongue, is secured by bolts and nuts c^3 c^4 a strong iron or steel strap D, the front end of which reaches a foot or more in front of the front bow, having its end turned back, forming a hook d , to which is attached a double-tree c' , carrying singletrees c^2 . On the top of said tongue, and about equidistant between said bows, is pivoted a hinge E by means of a bolt passing down through said

hinge, said tongue, and said brace, and secured by a proper nut. Its two arms e are twisted until their edges are vertical, and are perforated, so that the forward end of the handles F F may be bolted to the same. On the upper face of said tongue, and immediately over the rear bow, is secured a handle-brace G. Its base g is about one foot long, and has cut through it a longitudinal slot g' nearly the entire length of said base, and said slot is slipped over the bolt c^4 and secured by its nut, which fits on top of said base. The object of this base and slot is to enable the operator to set the handle either to the right, on the center, or to the left of said tongue, so that he may be able to walk behind the said plow in whatever relative position he may deem best, owing to the manner of work that is being done. Said brace has two arms extending upward and outward, to which said handles are bolted.

The plows represented in Figs. 1 and 2 of the drawings are suitable for scraping and dirting young cotton. The two front ones H are scrapers about two feet long, their front ends coming close together and near the young cotton or corn, while their rear ends stand much farther apart and throw the grass from the cotton into the middles. Each of them is provided with a dished base, and two arms h and h' . The front ones h are bolted to the forward ends of the elbows A. The rear ones h' are bolted farther back on said bar and lap over the top edge of the same. In the rear of said scrapers H are two other scrapers I, one on each side of the diamond-shaped base, also having lap ends h^2 . On the rear parts of said elbows are two dirters J J, which are bolted on the inside of the same, their lap ends turning out over the upper edges of said bar. The points of these dirters are spoon-shaped, turning back and slightly inwardly, the better to throw the dirt to the cotton, and are provided with perforated necks and lap ends h^2 , turning over the upper edge of the bar. The scrapers above described throw the dirt and grass away from the young crop, while the dirters J J follow after and throw the cleaned dirt to the young crop.

In addition to the plows and scrapers above described, other plows and scrapers adapted

to other kinds of work may be attached to my said frame.

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

1. In a double cultivator, as described, the combination of the tongue C, provided with proper handles and draft apparatus, the bar having the elbow-bends A A, forming the diamond-shaped base, perforated and adapted to carry plow-points and scrapers, and the bows B B, rising from said base and uniting with the said tongue, strap D, provided with the front hook *d* and running under the said tongue and bows, and bolts and nuts *c*³ *c*⁴, binding said parts together, substantially as shown and described.

2. In a double cultivator, as described, the combination of the tongue C, provided with proper handles F F, the bar having the elbow-bends A A, forming the diamond-shaped base, perforated and adapted to carry points and scrapers, and the bows B B, rising from said base and uniting with said tongue, strap D, provided with the front hook *d* and running

under the said tongue and bows, bolts and nuts *c*³ *c*⁴, binding said parts together, and scrapers H I and dirters J, having the laps *h*² secured to said base, substantially as shown and described.

3. In a double cultivator, as above described, the combination of the bar having the elbow-bends A A, forming the diamond-shaped base, perforated and adapted to carry plow-points and scrapers, and the bows B B, rising from said base, tongue C, resting on the apex of said bows, strap D, running under the said tongue and bows and provided with front hook *d*, hinge E, pivoted on the upper face of said tongue and carrying the handles F F, and handle-brace G, having the base *g* and slot *g'*, all united by proper bolts and nuts, substantially as shown and described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN BIRD GOOING.

Witnesses:

JAMES GOODING,
FRANK TAYLOR.