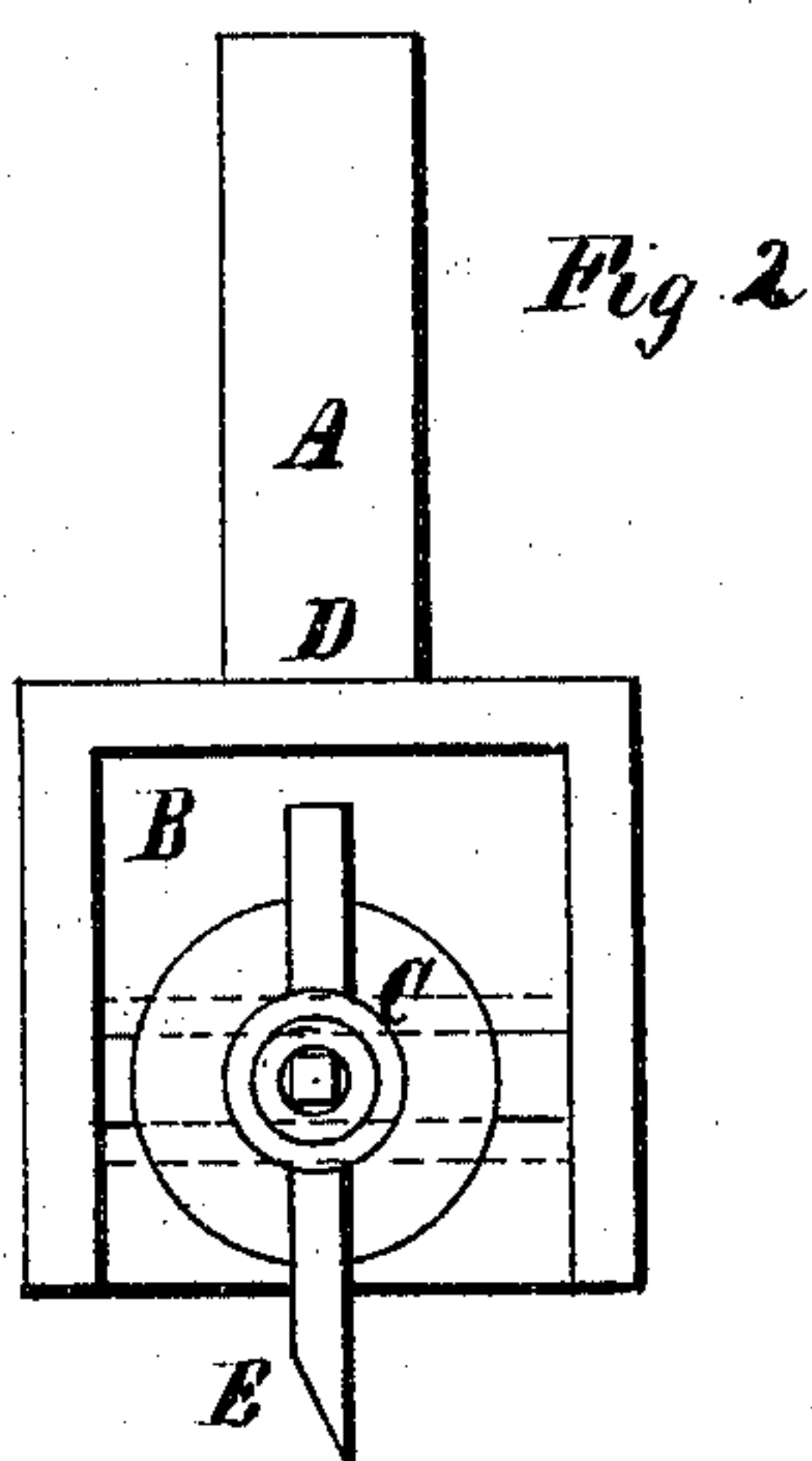
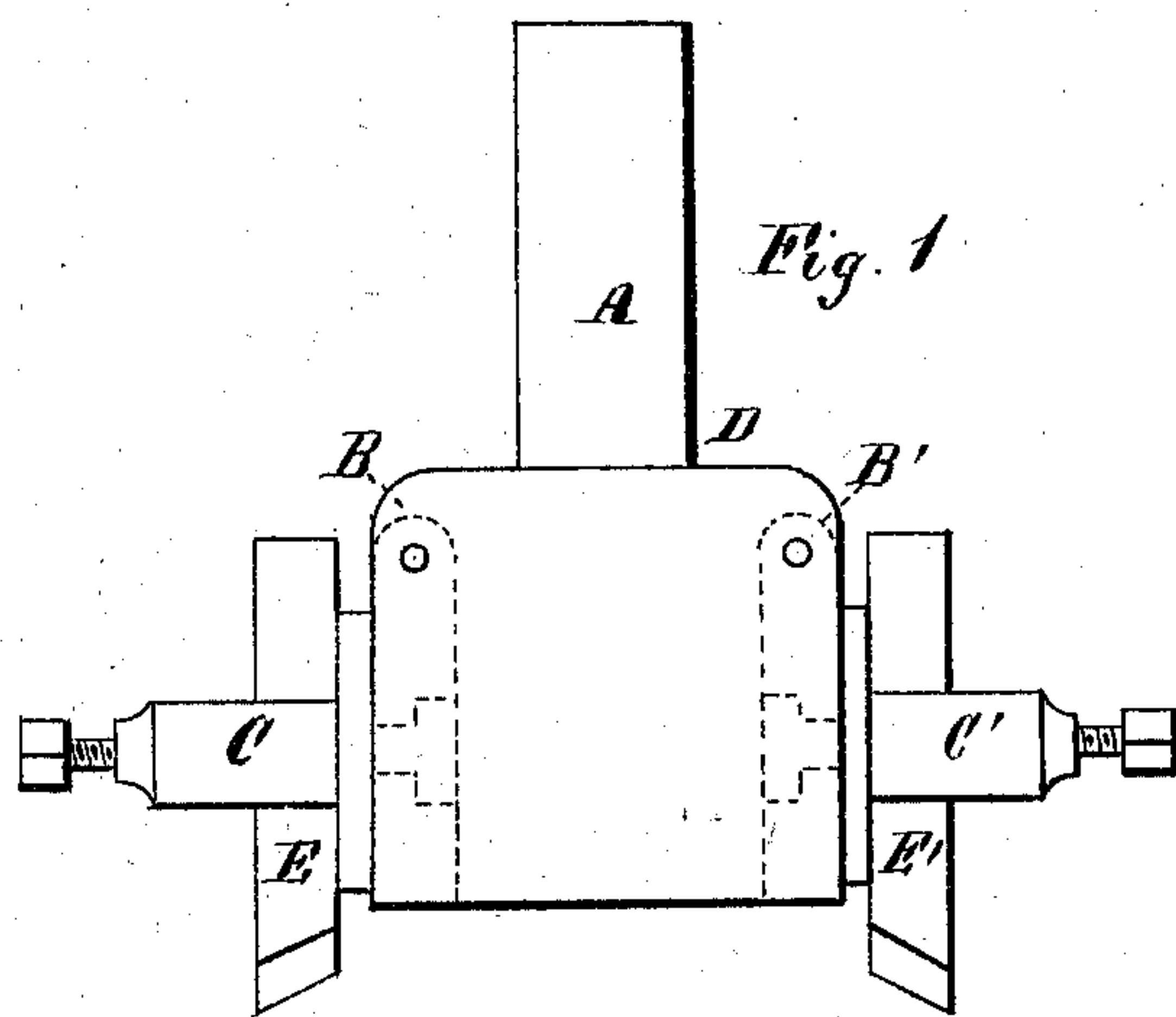


G. C. LARNED.
Metal Planing Machines.

No. 141,006.

Patented July 22, 1873.



Witnesses

Ben. Bloes
Henry Dunn

Inventor

Geo. C. Larned
by his attorney
Jas. G. Arnold

UNITED STATES PATENT OFFICE.

GEORGE C. LARNED, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN METAL-PLANING MACHINES.

Specification forming part of Letters Patent No. 141,006, dated July 22, 1873; application filed January 30, 1873.

To all whom it may concern:

Be it known that I, GEORGE C. LARNED, of the city and county of Worcester, State of Massachusetts, have invented certain Improvements in Iron-Planing Machines, of which the following is a specification:

My invention relates to the device for holding the tools for the common iron-planers; and is designed to enable them to plane both ways, and thus to rough off and finish in going over the surface once, or at one operation. To these ends its nature consists in making a tool-holder having two lift-plates with tool-posts to each, or some means of securing the tool in each, and so arranging them that the tools may be set to cut each way, while the upper part is formed as a shank to be held firmly to the sliding head of the planer in any of the common forms.

In the drawings, Figure 1 is a side view of my invention, and Fig. 2 is a front view.

A is the shank, to be held firm where the tool is usually placed. B B' are two lift-

plates, with tool-posts C C', or similar devices, to hold the tools E E' so that they may force each way—that one may lift while the other is at work, whichever it may be. At D is a shoulder fitting up to the planer-head to stiffen the holder for heavy work.

I am aware that tool-holders have been made to work both ways by turning the tool at the end of each stroke. Mine differs from those in being capable of being set for a coarse and fine chip, and thus finishing its work at one operation.

What I claim as my invention is—

The tool-holder for iron-planers, composed of a shank having a head with two tools and lifts, operating in opposite directions, when constructed and operating substantially in the manner and for the purposes described.

GEO. C. LARNED.

Witnesses:

C. H. ARNOLD,
JAMES G. ARNOLD.