

(No Model.)

C. W. McCORMICK.
ATTACHMENT FOR PLOWS.

No. 321,906.

Patented July 7, 1885.

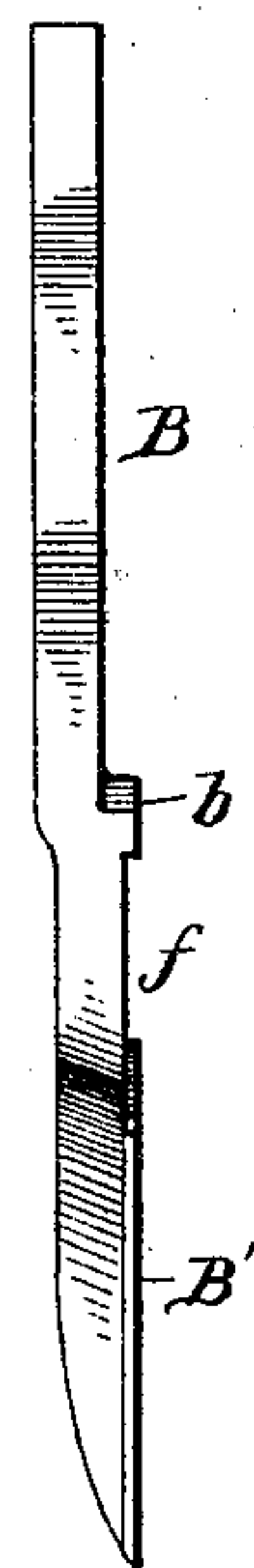
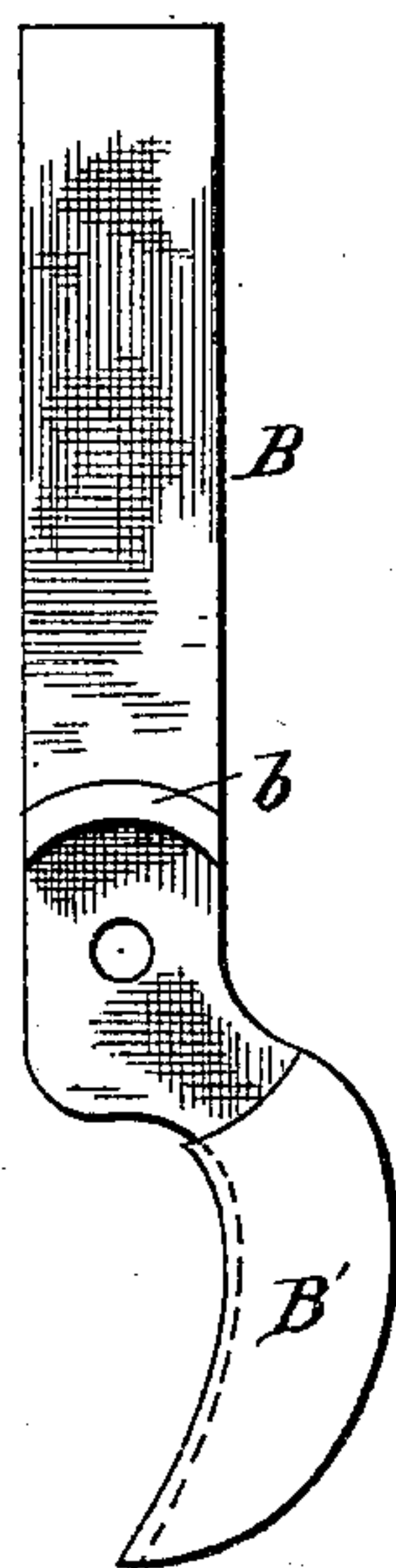
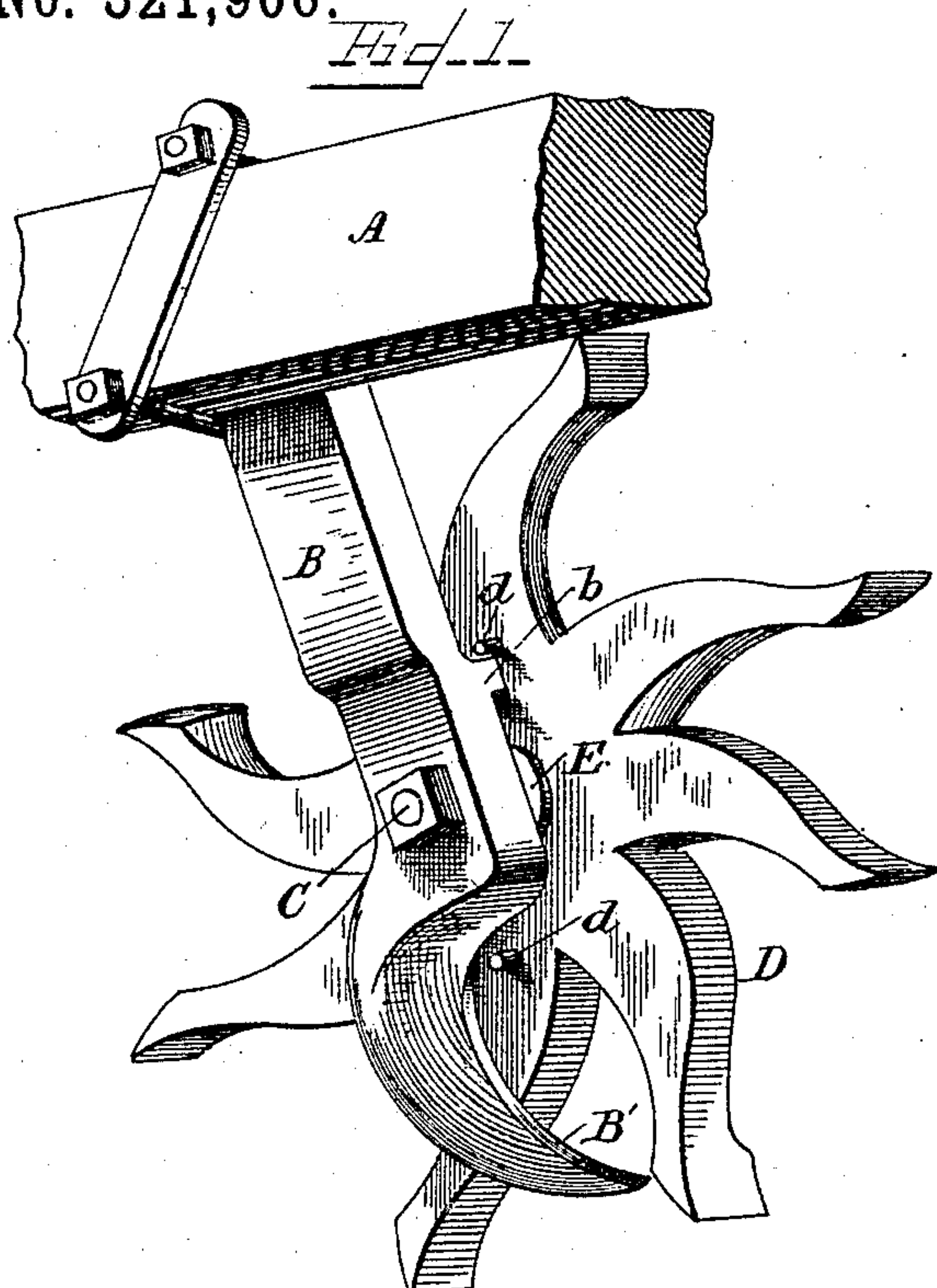


Fig. 4

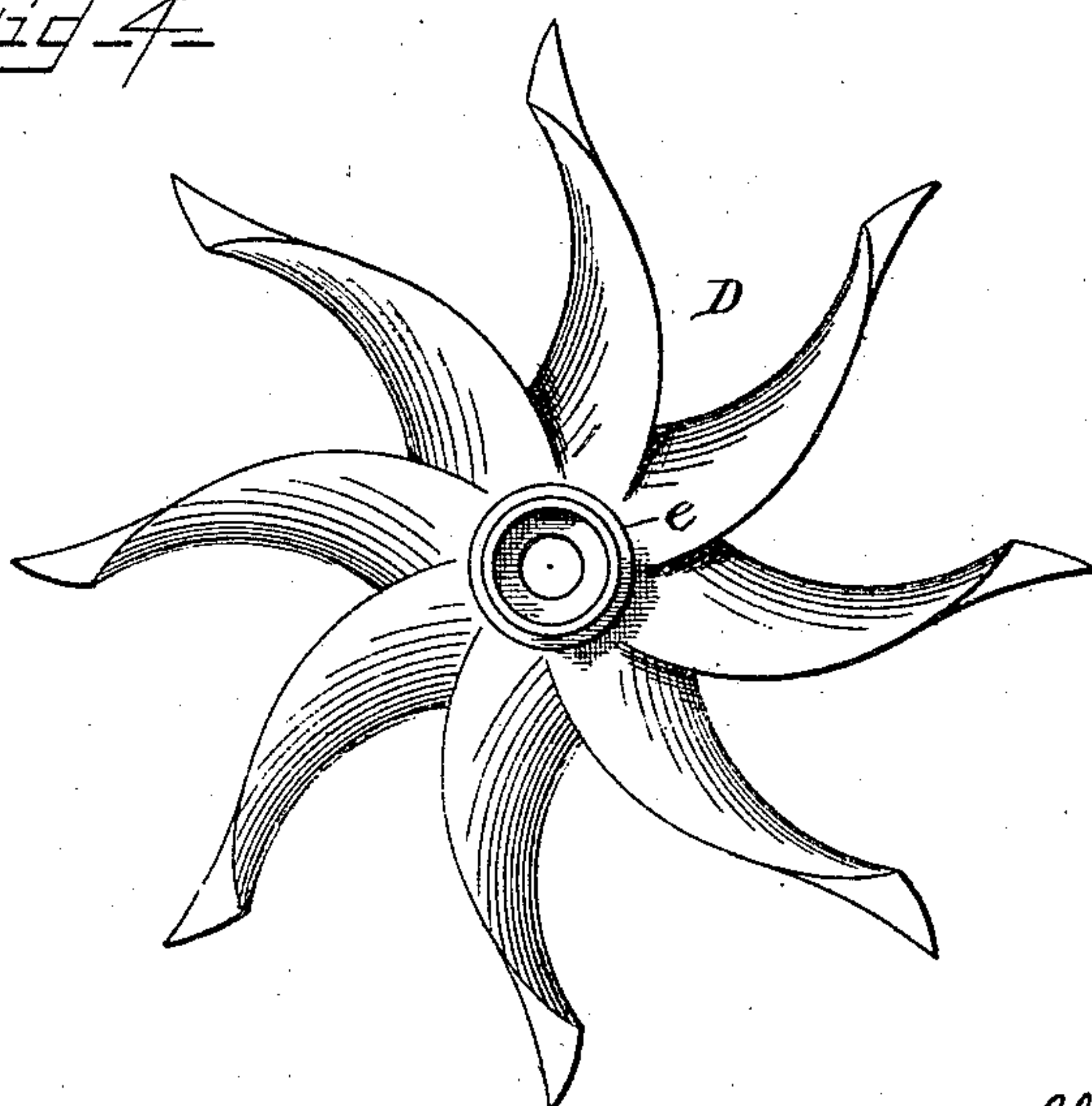
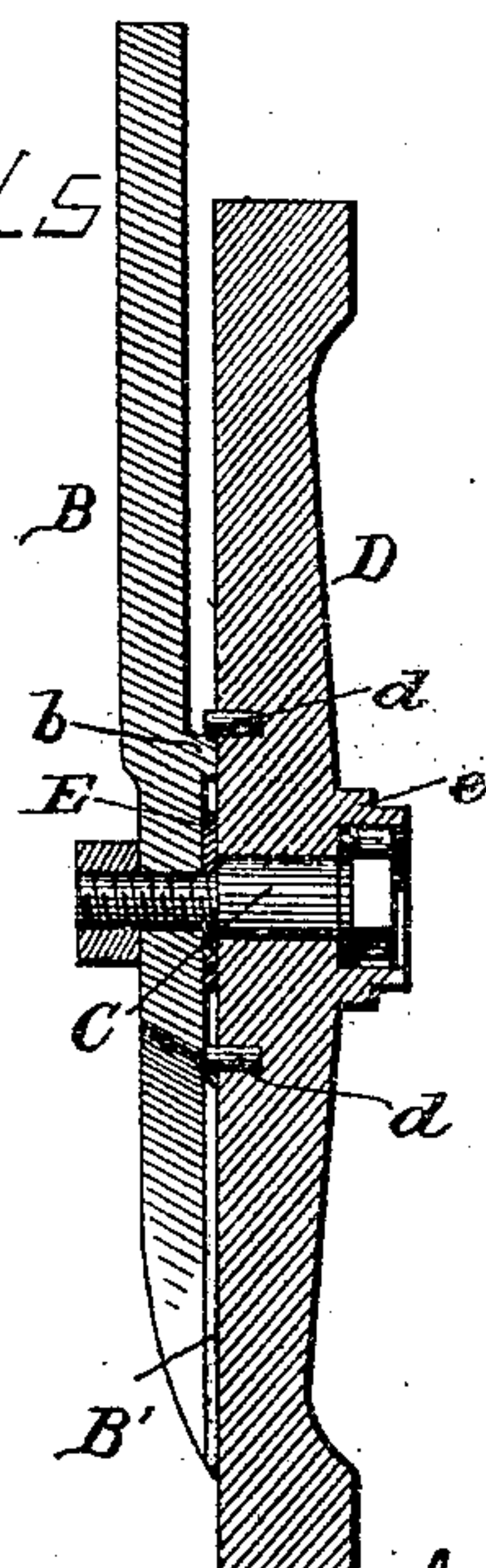


Fig. 5



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TO ALBERT LOVE.

ATTACHMENT FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 321,906, dated July 7, 1885.

Application filed March 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. McCORMICK, a citizen of the United States of America, residing at Emporia, in the county of Lyon and State of Kansas, have invented certain new and useful Improvements in Attachments for Plows; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to colter attachments for plows; and it consists in the improvements hereinafter fully explained and set forth.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of my improvement; Fig. 2, a side view of the stationary colter; Fig. 3, an end view of the same; Fig. 4, a side view of the rotary cutter, and Fig. 5 a transverse section.

A represents a plow-beam, to which the stationary colter B is attached in the usual manner. This stationary colter B has its lower end curved, as shown in Fig. 2, so as to provide a sickle-shaped cutting-edge, and the lower portion of the colter has attached thereto a plate, B', of hard metal—as steel—which plate will project slightly above the side of the stationary colter. Above this plate the colter is provided with a bearing for the pivot-bolt C, the bearing having an offset therein, as shown in Fig. 3, against which the shoulder *c* of the pivot-bolt C will abut. The lower portion of the shank of the stationary colter is provided with an arched or curved rib, *b*, which projects from the side of the colter, so as to be flush with the surface of the steel plate B' at the lower end of the colter by the construction hereinbefore described. It will be readily seen that a recess, *f*, is formed between the steel plate which is attached to the colter and the rib *b*. The rotary wheel or cutter D is provided with a series of radial arms, which are curved on their inner sides, said arms terminating in points. The center portion of the rotary cutter is provided with

one or more pins, *d*, which will play immediately above the rib or projection *b* of the stationary colter, and the surface of this rotary cutter is a perfect plane, and is provided with a chilled surface, so that the cutting-edges of the radial arms will not wear away rapidly. The opposite side of the rotary cutter is provided, adjacent to its central bearing, with a projecting flange, *e*, which will form a hollow or recess within which will lie the head of the pivot-bolt.

The advantages which I attain by the construction hereinbefore described over prior patents, especially over the patent of J. W. Baker, dated May 23, 1871, are as follows: By providing the stationary colter with the rib *b* dirt is prevented having access to the bearing, and will therefore prevent the excessive wearing of the parts upon each other, and the projecting pin *d* on the rotary cutter will remove what dirt may fall upon this rib. The steel plate attached to the lower portion of the stationary colter will also prevent wear upon this part of my improvement, and the journal and bearing is further protected by the annular rim, which is formed integral with the rotary cutter. The bolt C is of such construction that the wear upon the parts of the same may be taken up, a washer being, when desired, inserted under its head. Washer E is of the same thickness as the depression formed adjacent to the bearing, and it is inserted over end of the bolt adjacent to its screw-threaded portion, and said washer may be removed and a new one inserted to compensate for the wear. The pin or pins *d* are attached adjacent to the hub of the rotary cutter in perforations formed for the reception thereof after said rotary cutter is cast.

I claim—

1. The combination, in a colter for plows, of a stationary cutter perforated for the passage of the securing-bolt, a rotary cutter mounted on said bolt, a plate attached to the lower portion of said cutter and having its upper edge curved, as described, a curved rib or projection, *b*, formed above said perforation, substantially as set forth.

2. In a rotary colter for plows, a stationary

cutter having a plate attached at its lower portion, and a rib or offset formed above its journal, in combination with a rotary cutter having radial arms with cutting-edges, and one or more pins which project therefrom, substantially as shown, and for the purpose set forth.

3. In a colter for plows, a stationary cutter perforated for the passage of the bolt, a rotary cutter mounted on said bolt and having an annular flange projecting from its central portion, to form a recess for the reception of the head of said bolt, a plate, B', attached to

the lower portion of said cutter and having its upper edge curved, as described, and a curved rib or shoulder, b, formed integral with said cutter above the perforation thereof, substantially as set forth.

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

CHARLES W. McCORMICK.

Witnesses:

E. W. JOHNSON,

JOHN E. BEALL.