

(No Model.)

S. W. GODDARD.
CYLINDER FOR CARDING ENGINES.

No. 433,620.

Patented Aug. 5, 1890.

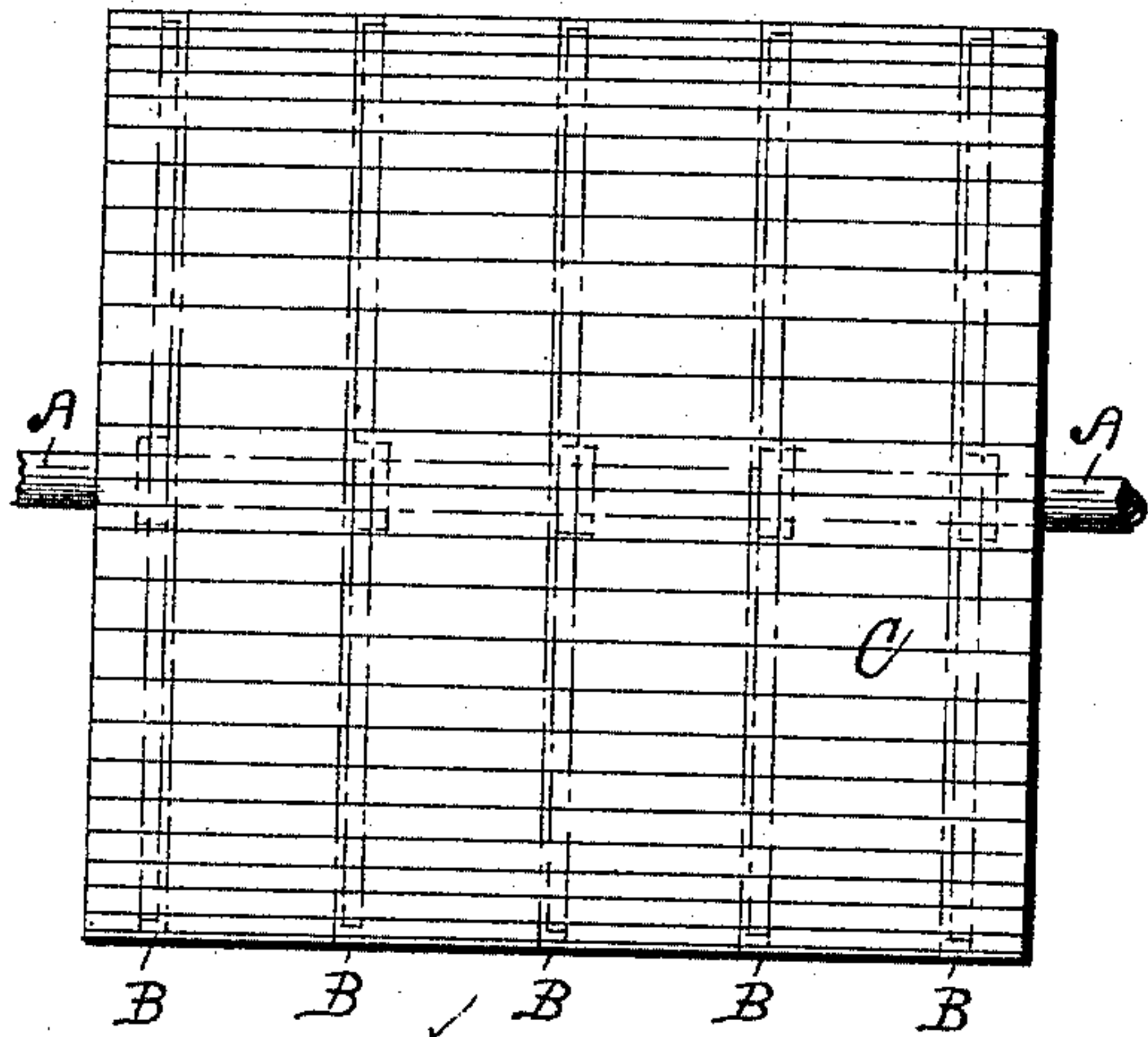


Fig. 1.

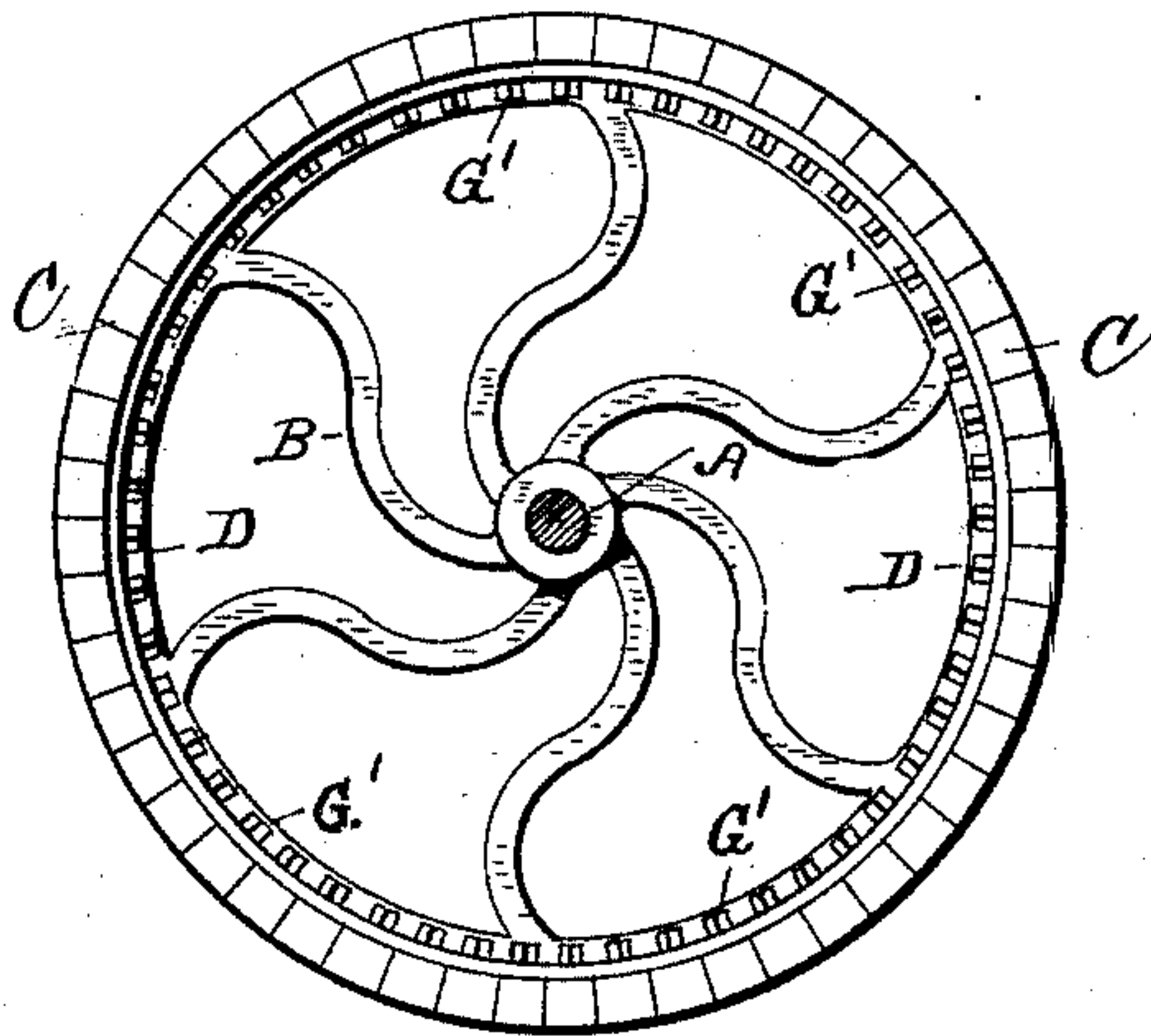


Fig. 2.

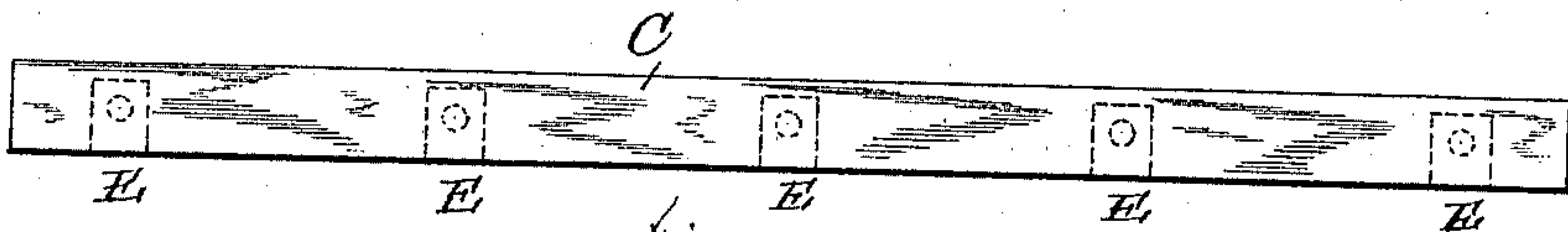


Fig. 3.

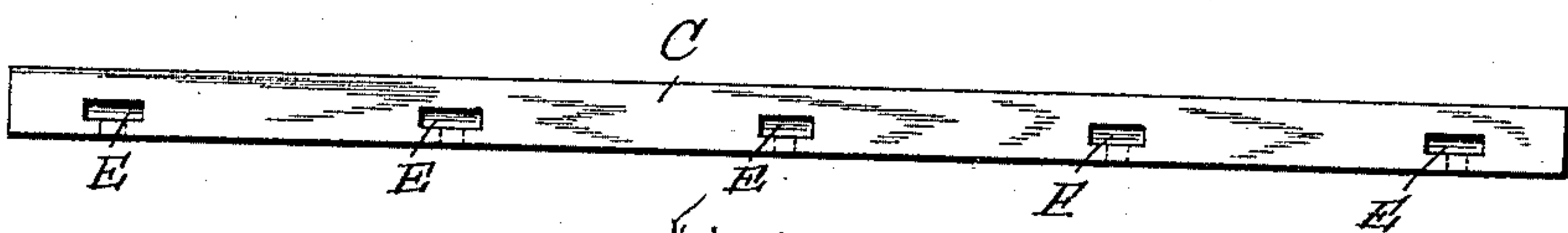


Fig. 4.

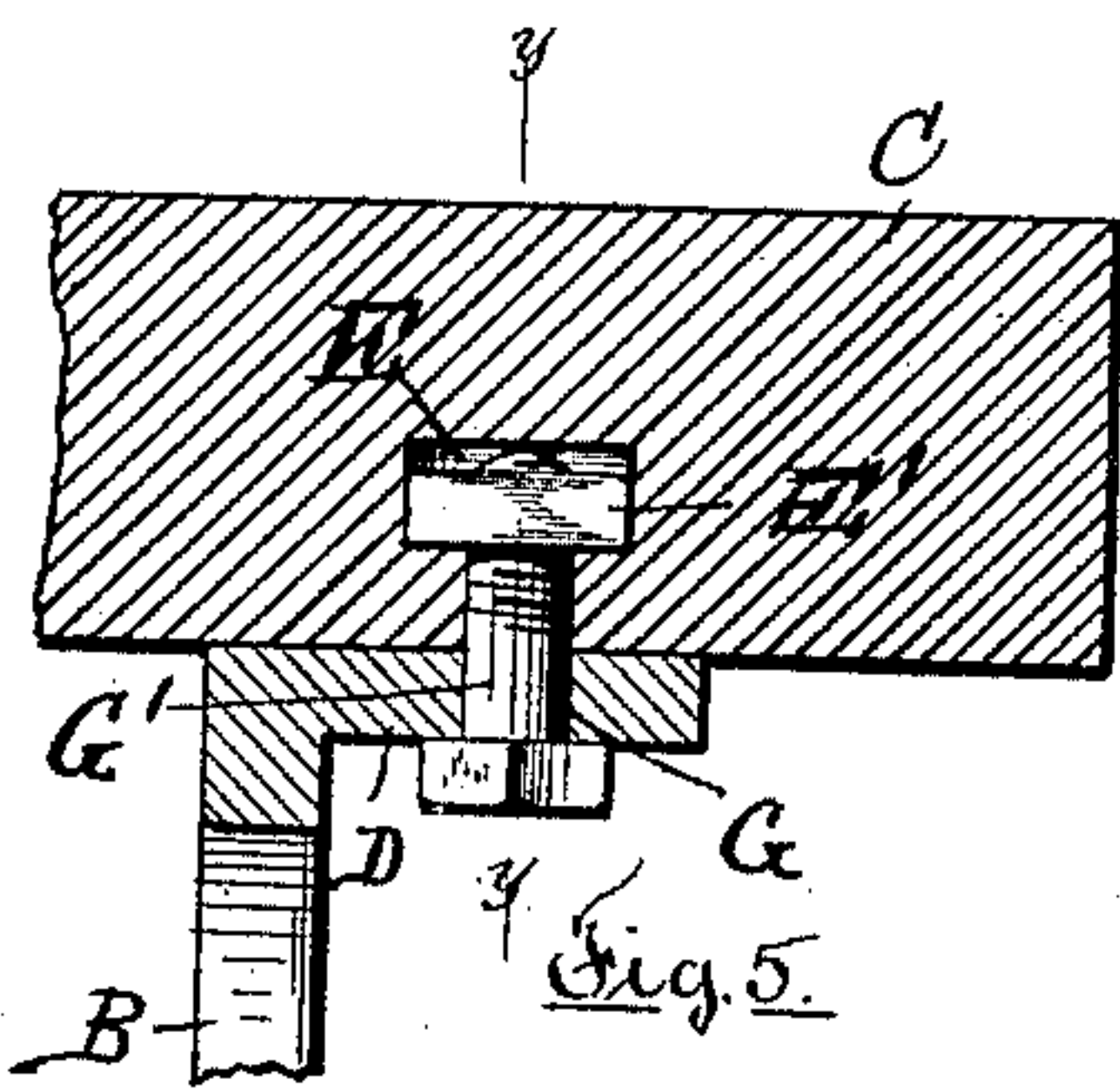


Fig. 5.

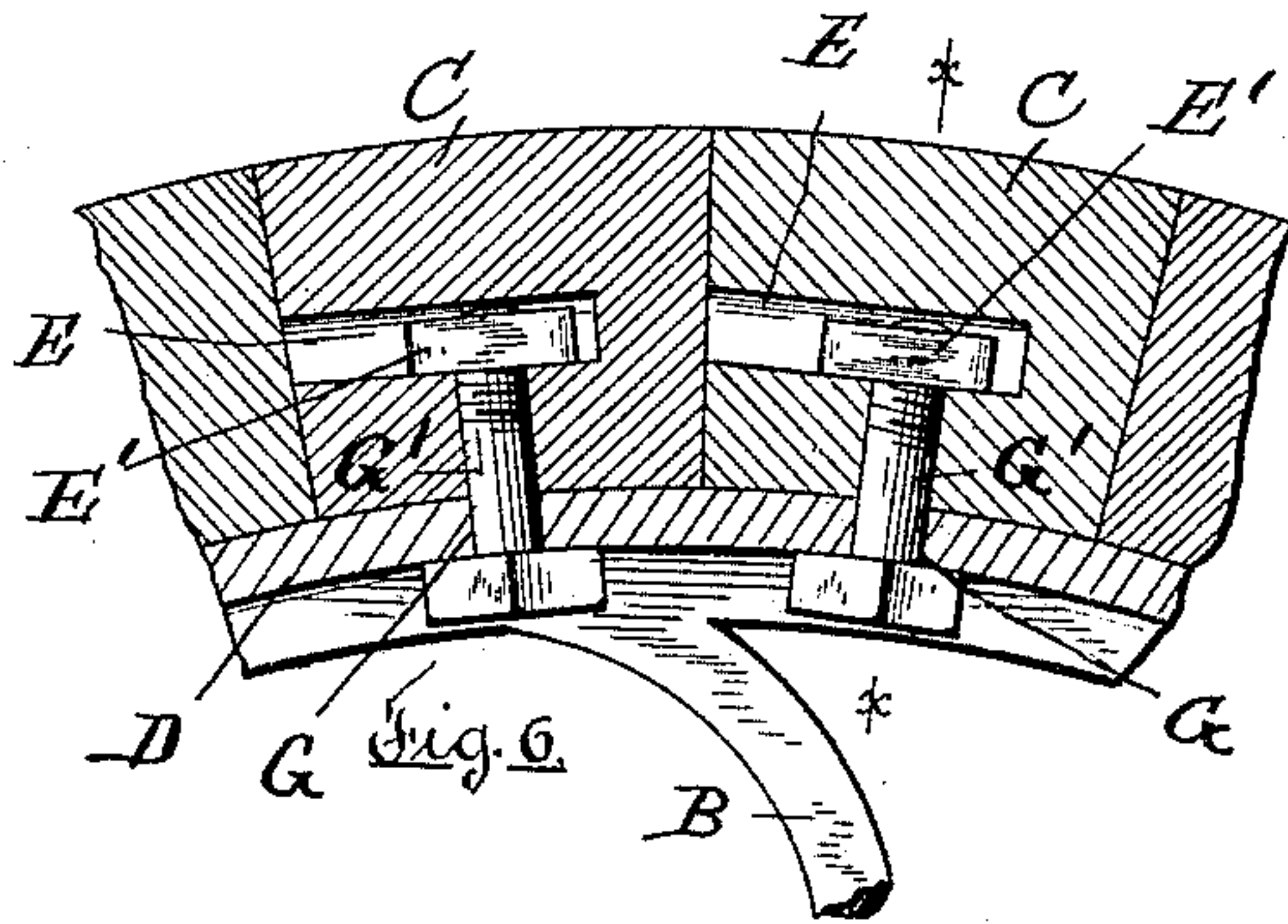


Fig. 6.

Witnesses
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CYLINDER FOR CARDING-ENGINES.

SPECIFICATION forming part of Letters Patent No. 433,620, dated August 5, 1890.

Application filed April 7, 1890. Serial No. 346,856. (No model.)

To all whom it may concern:

Be it known that I, SILAS W. GODDARD, a citizen of the United States, and a resident of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Cylinders for Carding-Engines, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which are represented such portions of a carding-engine as are necessary to fully illustrate the nature of my invention.

Figure 1 represents a view of the main cylinder of a carding-engine before the card-clothing is applied thereto. Fig. 2 is an end view of the same. Fig. 3 is a view of the outside surface of one of the wooden lags with which the cylinder is covered. Fig. 4 is an edge view of the same. Fig. 5 is a sectional view of a portion of one of the lags and a portion of one of the spiders to which the lag is attached, the section being taken on line X X, Fig. 6; and Fig. 6 is a sectional view of two of the lags and a portion of the spider to which they are attached, the section being taken on line Y Y, Fig. 5.

Similar letters refer to similar parts in the several views.

My invention relates to the cylinders of carding-engines which are formed by attaching a series of wooden lags to spiders, and in the accompanying drawings I have shown my invention as applied to the construction of the main cylinder of a machine for carding wool.

The cylinder represented in Figs. 1 and 2 is mounted upon the shaft A, which is journaled in bearings in the frame of the machine. Attached to the shaft A are the spiders B, (shown in Fig. 2 and by the broken lines in Fig. 1,) and to the periphery of the circular spiders are attached the wooden bars or lags C, placed lengthwise of the cylinder and usually attached to the spiders by bolts, which are passed through the lag and screwed into the rim D of the spiders, the lags being counter-bored in order to sink the bolt-heads below the surface of the lag, and the holes are then plugged with wooden plugs. This is required in order to secure a solid bearing and sup-

port for the card-clothing which is attached to the outer surface of the cylinder, after it has been properly trued or turned into a true cylindrical form, in order to preserve a true cylindrical form for the surface of the card-clothing attached to and supported upon the face of the cylinder. Each of the wooden plugs so inserted in the face of the cylinder becomes an inlaid piece, with a different grain liable to be unequally affected by atmospheric changes and consequent displacement or variation in the plane of its outer surface, thereby destroying the true cylindrical support for the card-clothing to the extent of the variation in the surface of the plugs. To obviate the necessity for the use of these plugs and to secure a cylinder with its face of a uniform grain of wood is the object of my invention.

In my improved method of construction of the cylinder I employ lags C, provided with mortises E upon one side of the lags and radially about midway of the lag, the mortise E extending from one side of the lag a short distance past the center of the lag and arranged in the lags to correspond with the position of the spiders B B. Rectangular-shaped nuts E' sufficiently large to prevent their rotation are inserted in the mortises E, and when the lag is placed in position upon the spider a bolt G' is passed through a hole in the rim D and screwed into the nuts E', securely binding the lag upon the periphery of the spiders. The next lag is provided with nuts similarly inserted in the mortises and placed in position next the attached lag, and fastened to the spider in the same manner. The rims of the spiders are provided with a series of holes G to receive the bolts G', the distance between the holes in the rim being equal to the distance from the center of one lag to the center of the next adjacent lag. As the nuts E' nearly or quite fill the mortises E diametrically, they are held from rotation, thereby preventing the loosening of the nuts by the jar of the machine when in operation and the outer surface of the lag is left whole.

What I claim as my invention, and desire to secure by Letters Patent, is—

The within-described improvement in the

construction of the cylinders of carding-engines, and consisting in the combination, with the cylinder-shaft and with spiders mounted upon said shaft and provided with a series
5 of radial holes corresponding with the lags to be attached to said spiders, of lags having lateral mortises upon one side corresponding with the spiders, nuts inserted in and held from rotation in said mortises, and clamping-

bolts held in said spiders and entering said nuts, whereby the outer surface of said lags is left entire, substantially as described.

Dated the 4th day of April, 1890.

SILAS W. GODDARD.

Witnesses:

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WALTER S. BOWEN.