

W. Gilman,

Making Plow Beams.

No. 105668.

Patented July 26, 1870

fig. 1

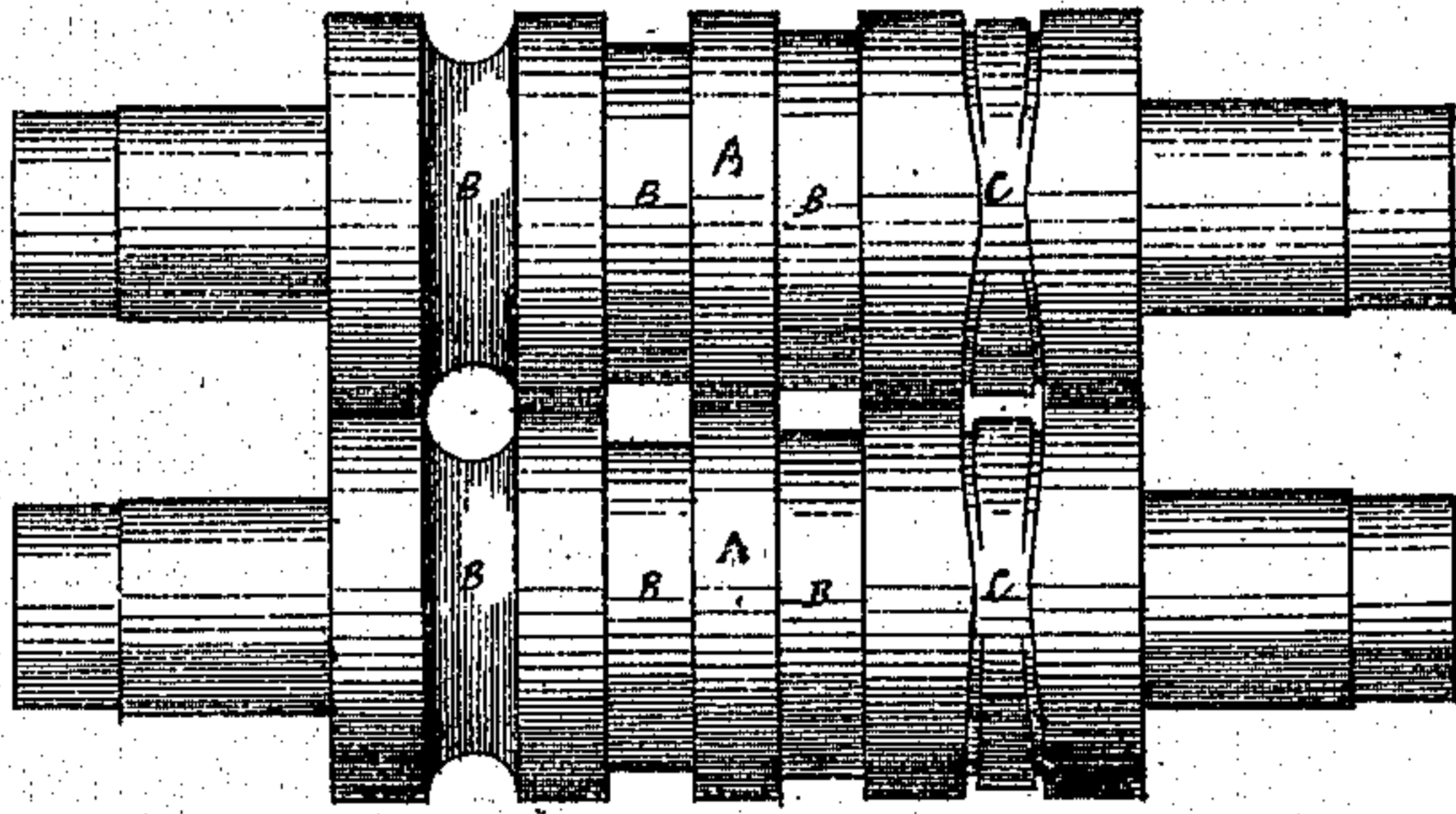


fig. 3

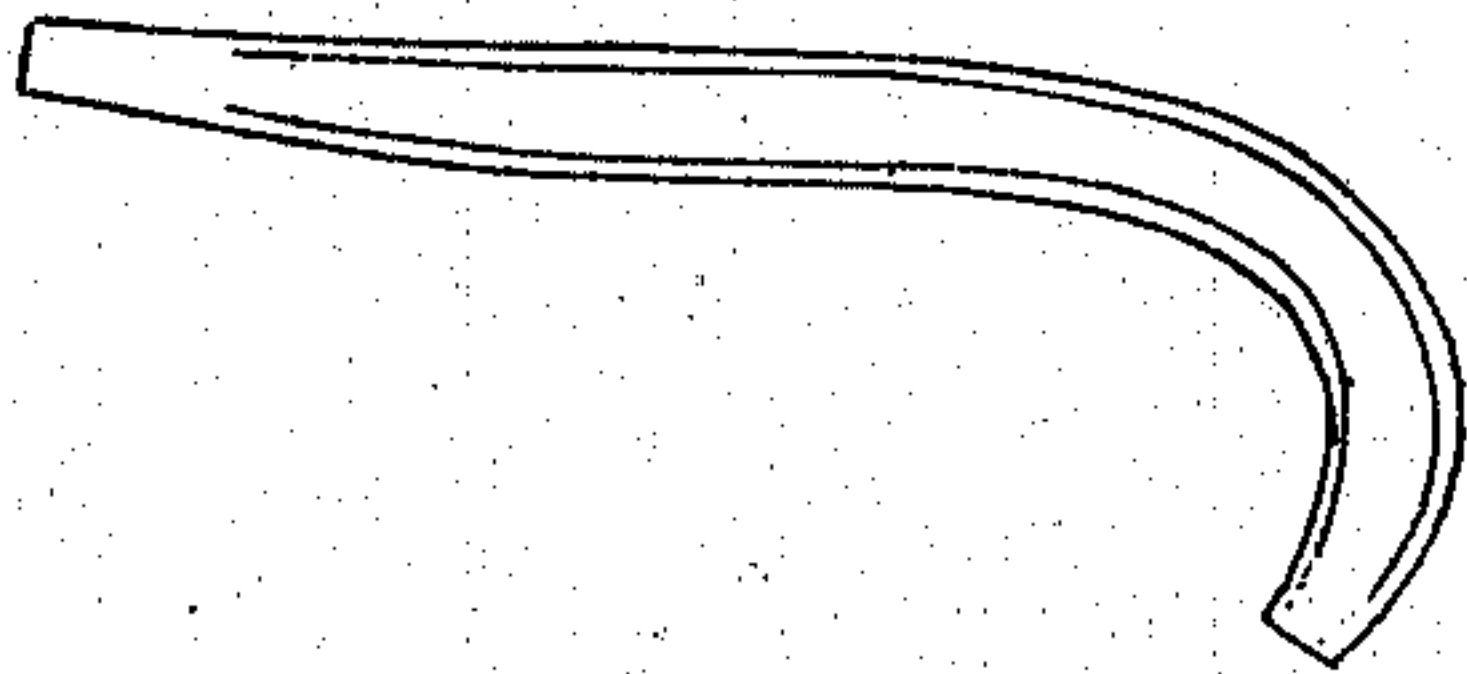
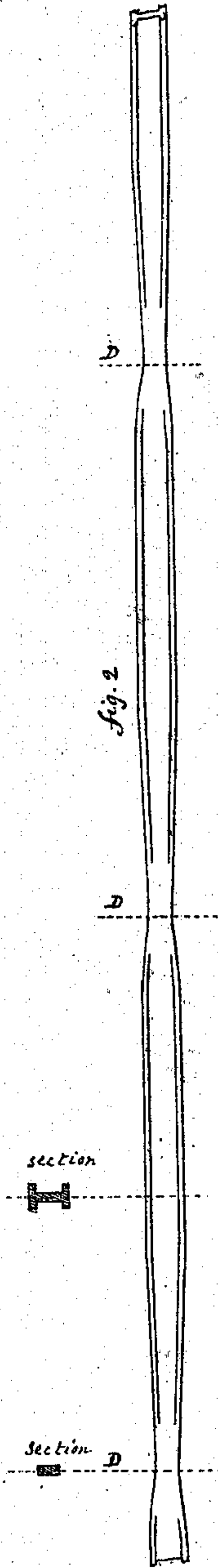


fig. 2



Witnesses: Edward Rose
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United States Patent Office.

WILLIAM GILMAN, OF OTTAWA, ILLINOIS.

Letters Patent No. 105,668, dated July 26, 1870.

IMPROVEMENT IN MACHINES FOR ROLLING PLOW-BEAMS.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM GILMAN, of Ottawa, in the county of La Salle, in the State of Illinois, have invented a certain Improvement in Plow-beam-rolling Machinery, of which the following is a specification

The nature of my invention consists in cutting or turning into the two rollers of a rolling-mill, a groove, for the purpose of manufacturing plow-beams of rolled iron.

The object of my invention is to roll out said plow-beams tapered at both ends, instead of a uniform thickness, as has been done heretofore, the tapering being performed at the same operation and with the same heat, while the practice is, and has been, to reheat the beam at each end after it is cut to the proper length, and to taper it off with a trip-hammer, then to reheat it again and bend it to its proper shape. My improvement performing the tapering of both ends during the rolling process, and in as little time as if the beam was rolled straight, therefore, leaves the iron hot enough after passing through the rolls to bend it to its proper shape, thereby saving three heatings and much of the labor of handling.

Figure 1, in the drawing, is a side elevation of the part of the machine embodying my invention.

Figure 2 is a bar of iron as produced by my invention.

Figure 3 is a view of a finished plow-beam.

The rolling-mill is constructed in the ordinary manner, the rolls A A having a series of circular grooves, B B B, in order to gradually reduce the bloom, first, into a round bar, then, flat, and finally, the bar is made to pass in the groove C, which gives it the flanges, if a flanged beam is desired, and also tapers both ends of each beam; the beams being still attached to each other, will have to be cut at the places marked D D D, fig. 2. After this, and while still hot, they are brought into a press, constructed especially for that purpose, and bent into the shape required for a plow-beam, whether it be a ground-plow or cultivator plow, (see fig. 3.)

I am aware that rollers with grooves, so shaped as to be capable of reducing bars to a tapered form from the middle or thereabout to the extremities, are not new, and I disclaim any right or title to such a device singly; but

What I do claim as my improvement in rolling apparatus, is—

The grooves C, with lateral walls curved, as described, and with flat bottoms having marginal grooves therein, all as described and shown, for the purpose of rolling tapered plow-beams with lateral flanges.

Witnesses: WILLIAM GILMAN.

EDWARD ROSE,
CHAS. F. BUTLER.