

(No Model.)

W. GRANT.
METAL BAR TO BE CALKED.

No. 500,884.

Patented July 4, 1893.

Fig. 1.

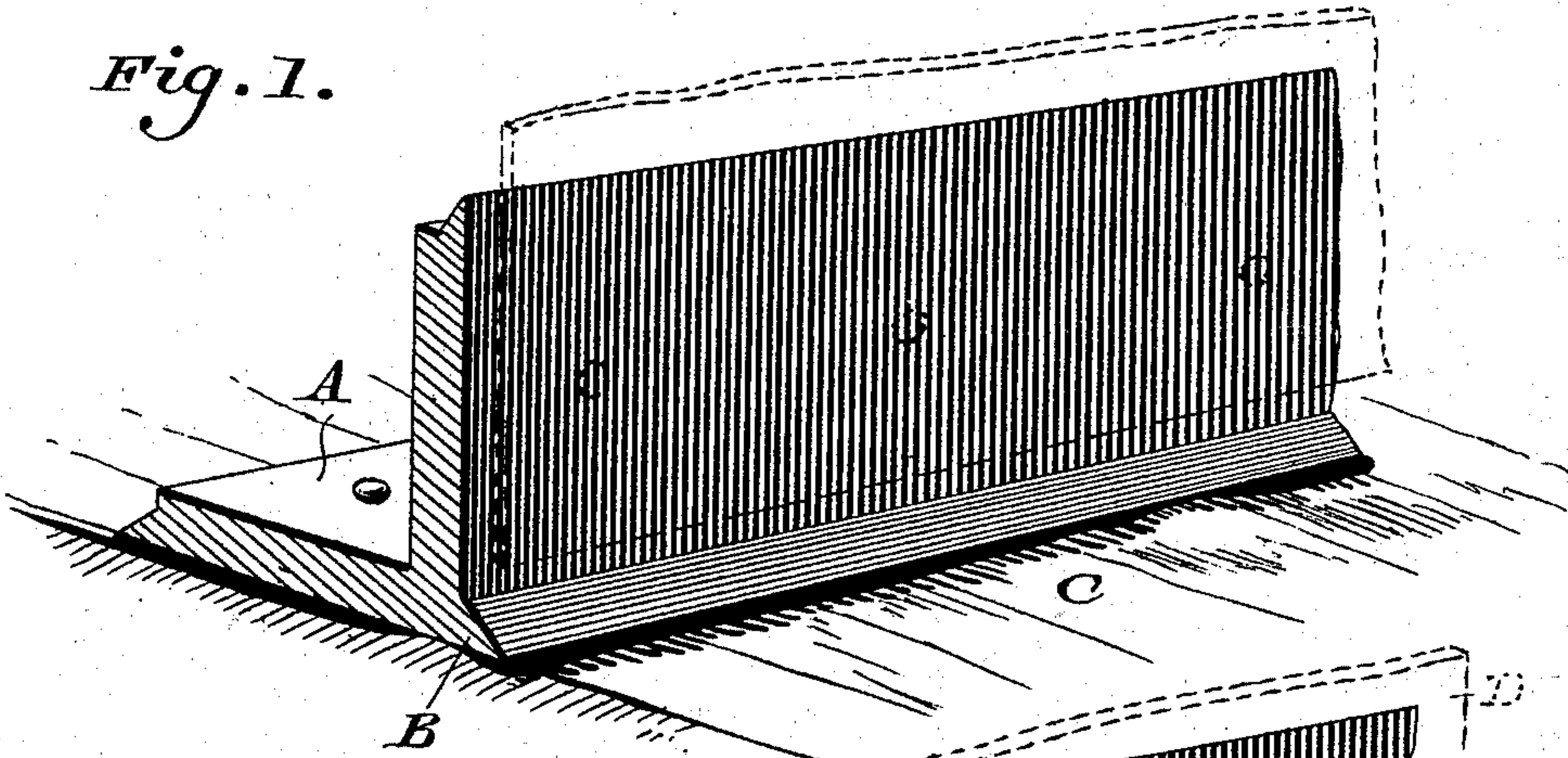


Fig. 2.

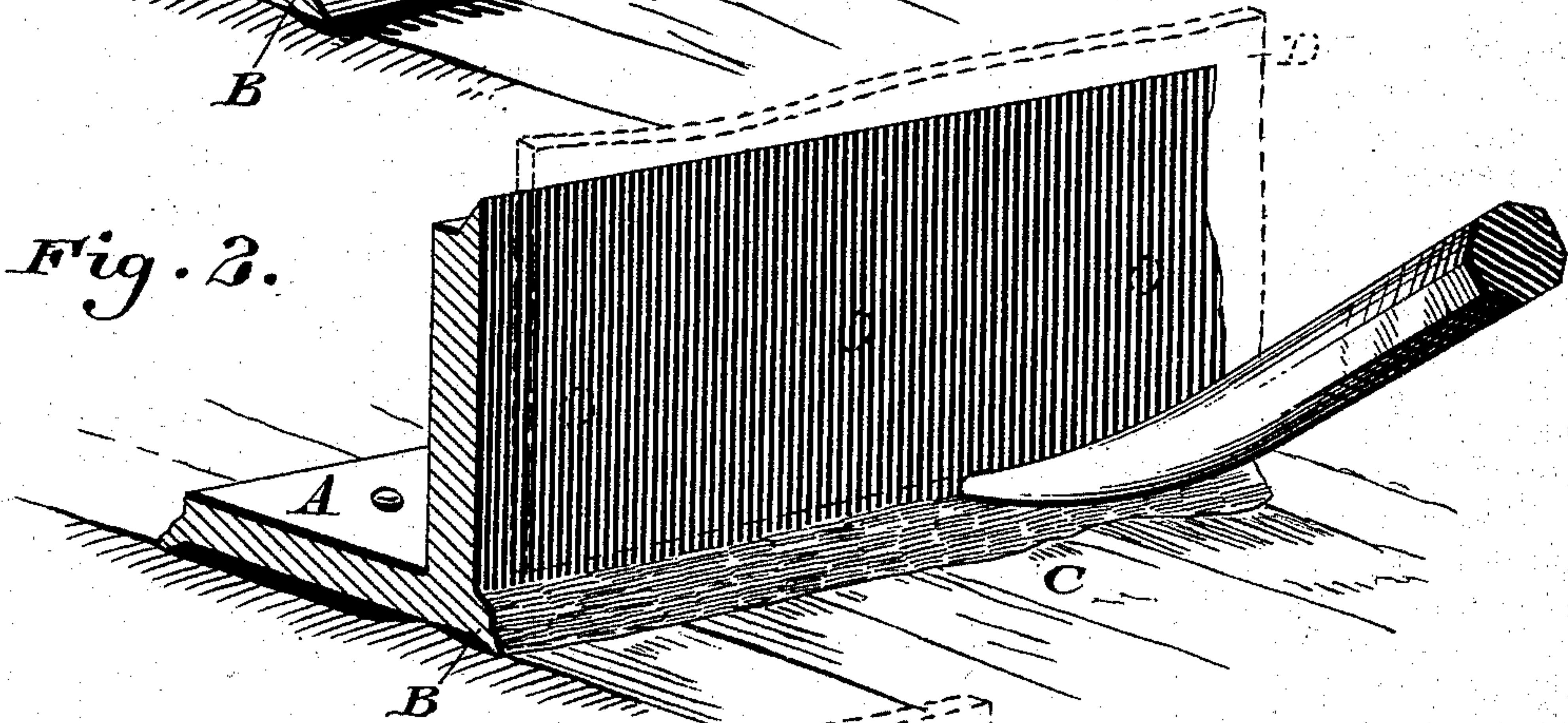


Fig. 3.

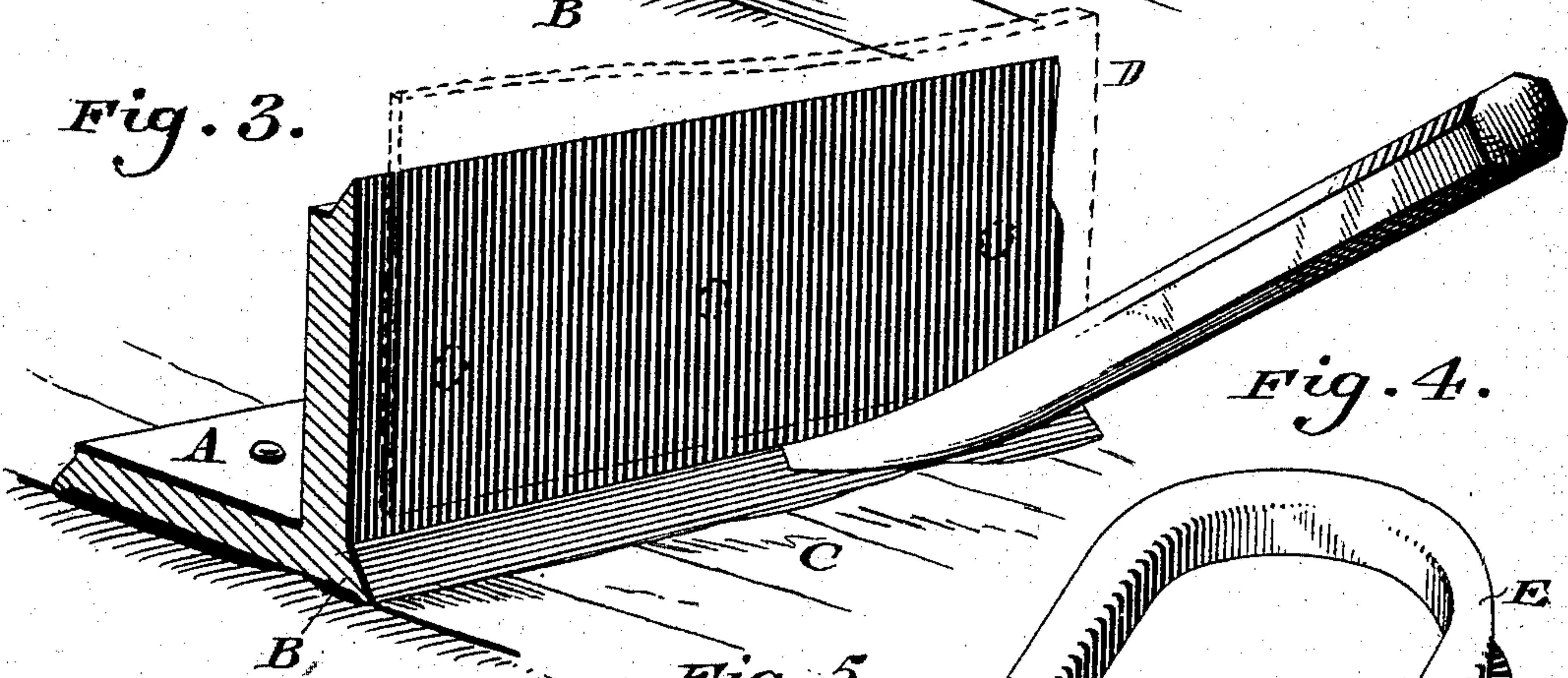


Fig. 4.

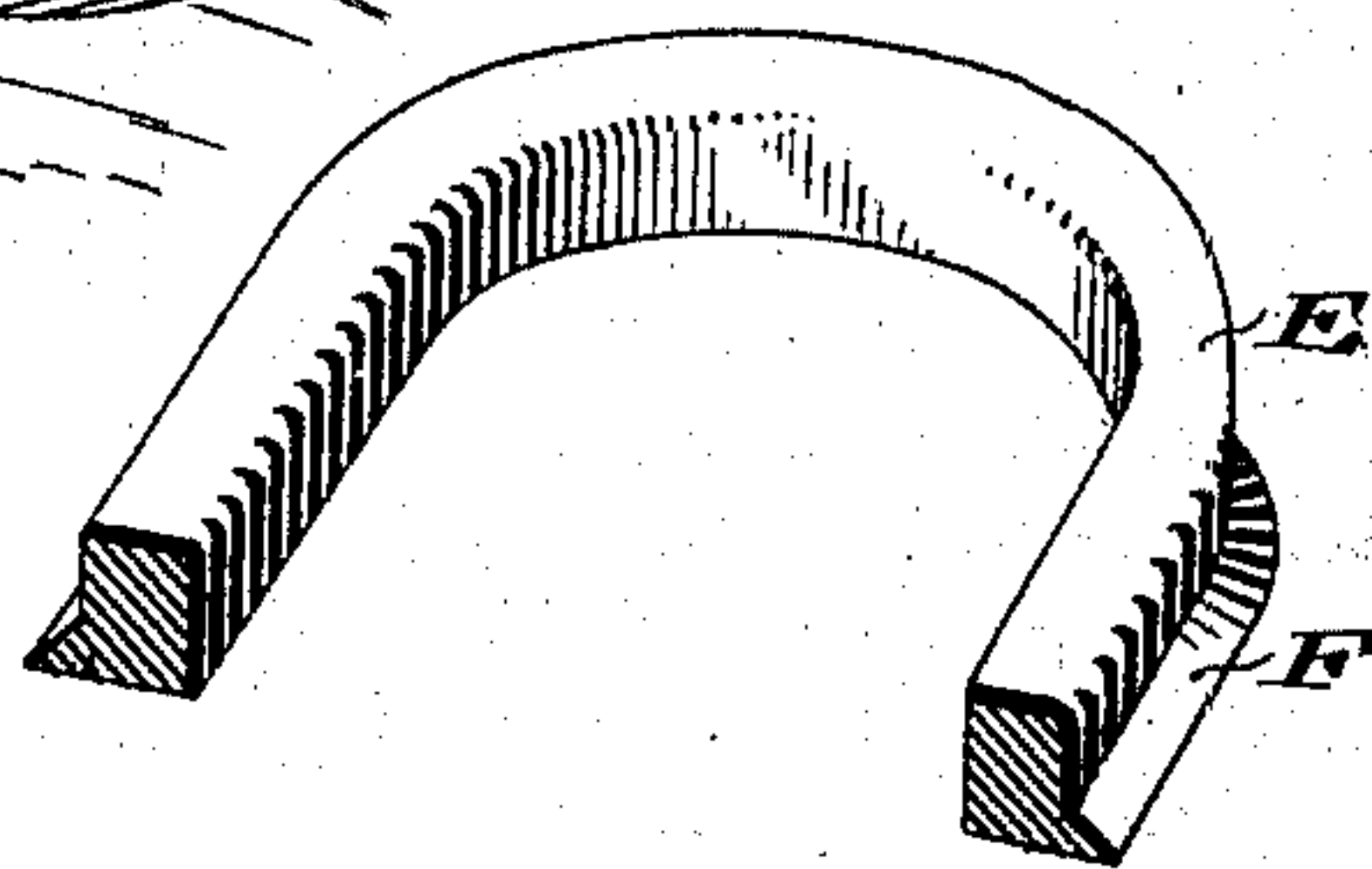
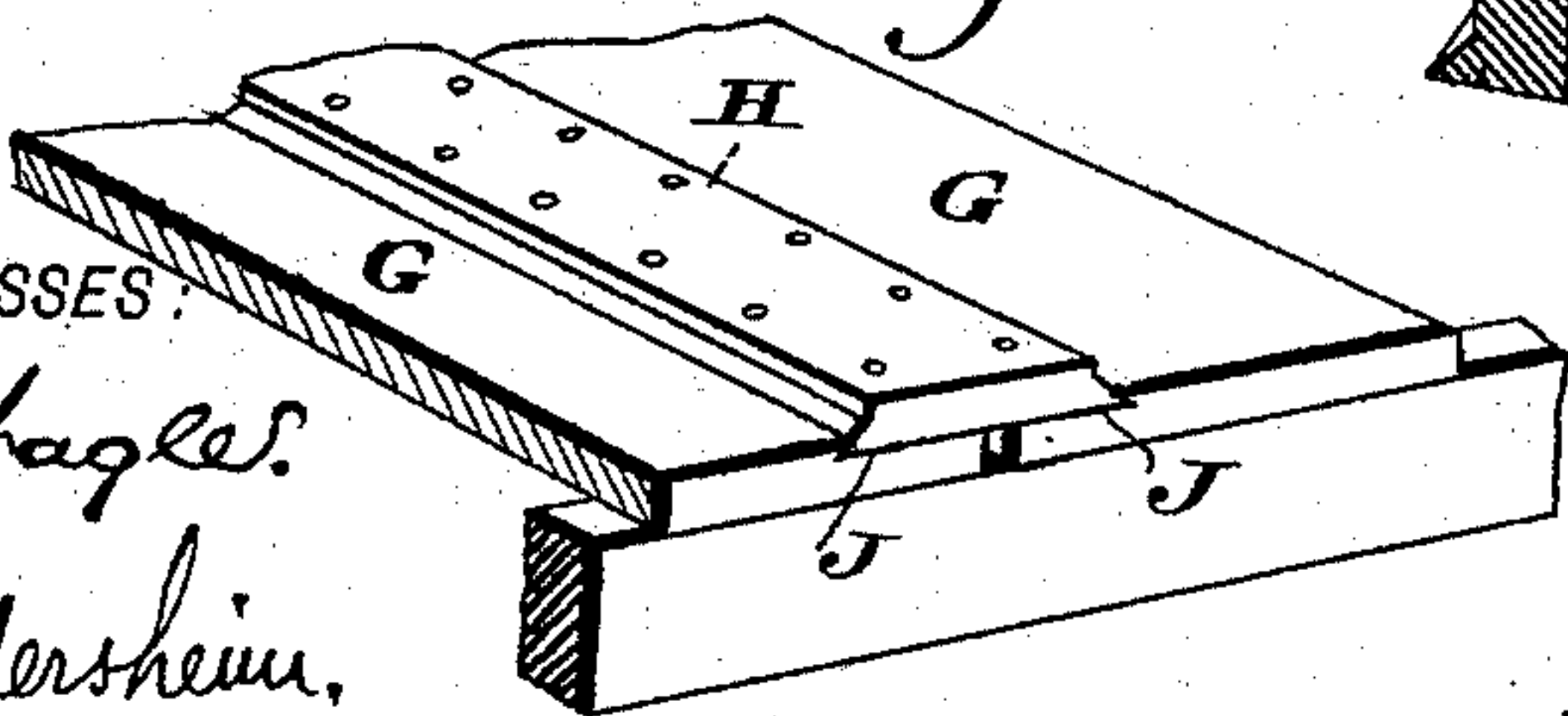


Fig. 5.



WITNESSES:

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METAL BAR TO BE CALKED.

SPECIFICATION forming part of Letters Patent No. 500,884, dated July 4, 1893

Application filed December 5, 1891. Serial No. 414,102. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GRANT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Metal Bars to be Calked, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in angle bars and other metallic bars, plates, frames, rings, rims, &c., either rolled or cast, used in the construction of ships, tanks, boilers, stills, gas-holders, &c., where a tight joint or seam is desired and required to be calked, and for such purpose my invention consists of a projecting edge or lip to provide sufficient metal, rolled or cast on said bars, &c.

The object of my invention is, first, when applied to any form of bar plate or ring to supply sufficient metal to drive in and calk; second, to form by rolling or casting, an edge, lip or projection adapted to be calked, and thereby dispensing with the operation of forming a calking edge, by either splitting, chipping or planing, as heretofore practiced.

Other objects of my invention or improvement, when the projecting edge or lip is rolled or cast on the heel or corner of an angle bar or other similarly formed bar, having wings or flanges, are, first, to dispense with the use of filling or packing pieces; second, to prevent any weakening of the bar along the line of calking, by splitting and calking the same; third, to make it convenient to do the calking after both flanges of the bar are connected or riveted, thereby avoiding all jarring and loosening of the calking; fourth, to strengthen and stiffen the bar, and thereby reduce or prevent vibration of the parts of a ship or boat by operating the engines, or the rolling of the sea.

Referring to the drawings: Figure 1 represents a perspective view of an angle bar embodying my invention. Figs. 2 and 3 represent perspective views of the bar at different stages of the calking operation. Fig. 4 represents a perspective view of a portion of a ring embodying my invention. Fig. 5 represents a perspective view of a portion of a rolled metal bar embodying my invention.

Similar letters of reference indicate corresponding parts in the several figures.

A designates an angle bar having at the heel or angle thereof the projecting edge or lip B, which is adapted to be driven in and calked in close contact with the portion of deck or other plates C, with which said bar is connected, thus effectually closing any opening or inequalities which may exist between said bar and plates, thus making a tight joint between said parts.

It will be noticed that by the employment of the projecting edge or lip B, I provide sufficient metal to be driven in and calked, thus avoiding the use of packing or filling pieces, and obviating the thinning or reducing of the thickness of the bar and weakening of the same along the line of calking, as heretofore practiced. Furthermore, the calking edge B projecting out from under the edge of the sheet D, shown by dotted lines, connected to the bar A, the calking may be conveniently accomplished, after both flanges of the bar have been riveted or secured, thus avoiding all jarring or loosening of the calking.

In Fig. 4, there is shown a portion of a cast malleable metal ring E, such as is used for man-holes in tanks, boilers, &c., the same having a calking edge or lip F, cast thereon.

Fig. 5 shows a portion of a flat metal bar H, such as is used in the construction of ships, tanks, &c., for making butt plates or butt straps, liners, &c., the said bar having the projecting edges or lips J rolled thereon.

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

1. A metal bar angular in form, with wings or flanges, having at its angle or angles a projecting portion, rolled or cast thereon, specially adapted to be calked, substantially as described.

2. A metal bar having a projecting lip or lips, rolled or cast thereon, specially adapted to be calked, substantially as described.

WILLIAM GRANT.

Witnesses:

WILLIAM C. SHETSLINE,
JAMES POWERS.