

M. M. GOLDSMITH, G. M. CRUICKSHANK & S. BROWN.
Machine for Cutting Horn into Sheets.

No. 200,050.

Patented Feb. 5, 1878.

Fig. 1.

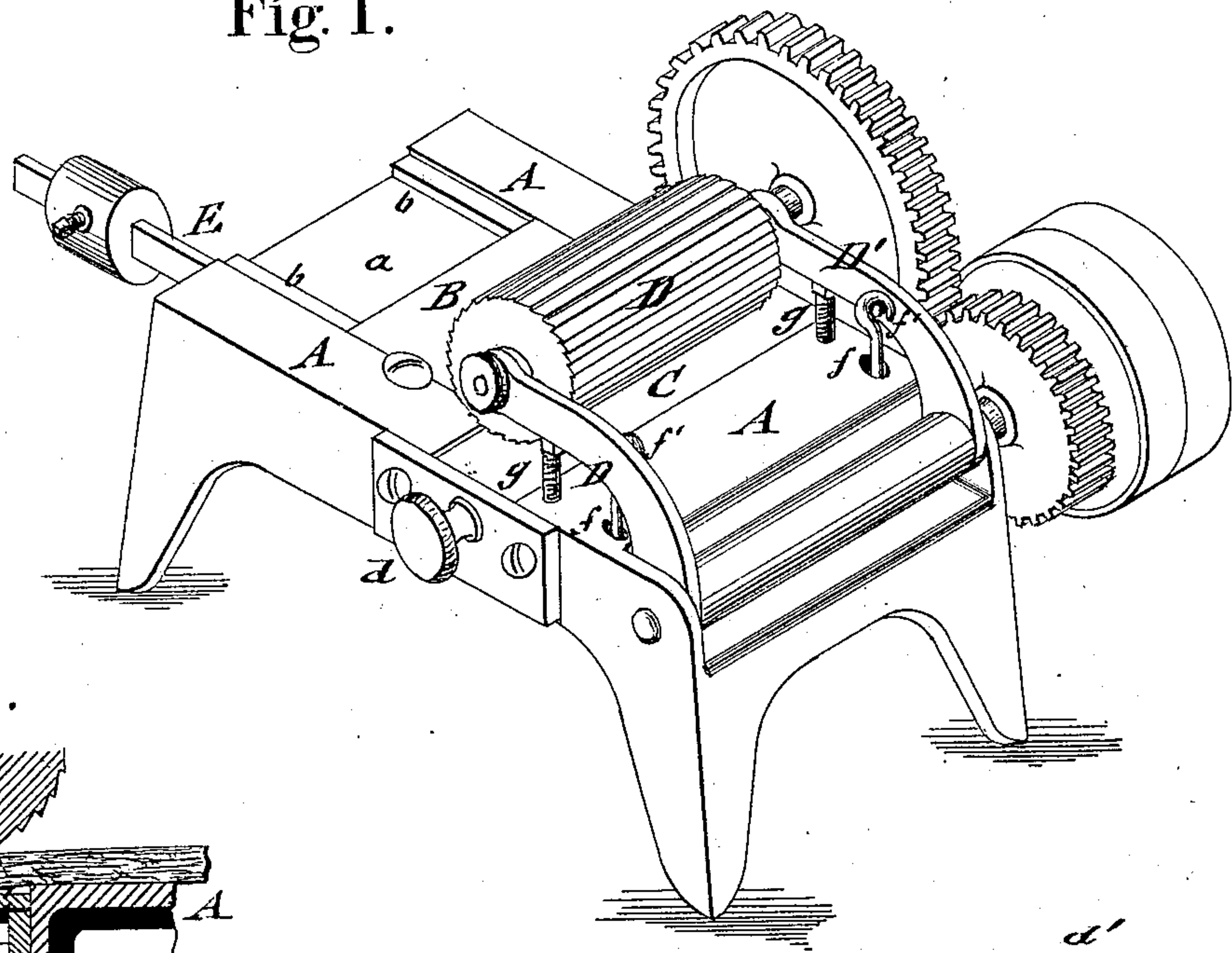


Fig. 4.

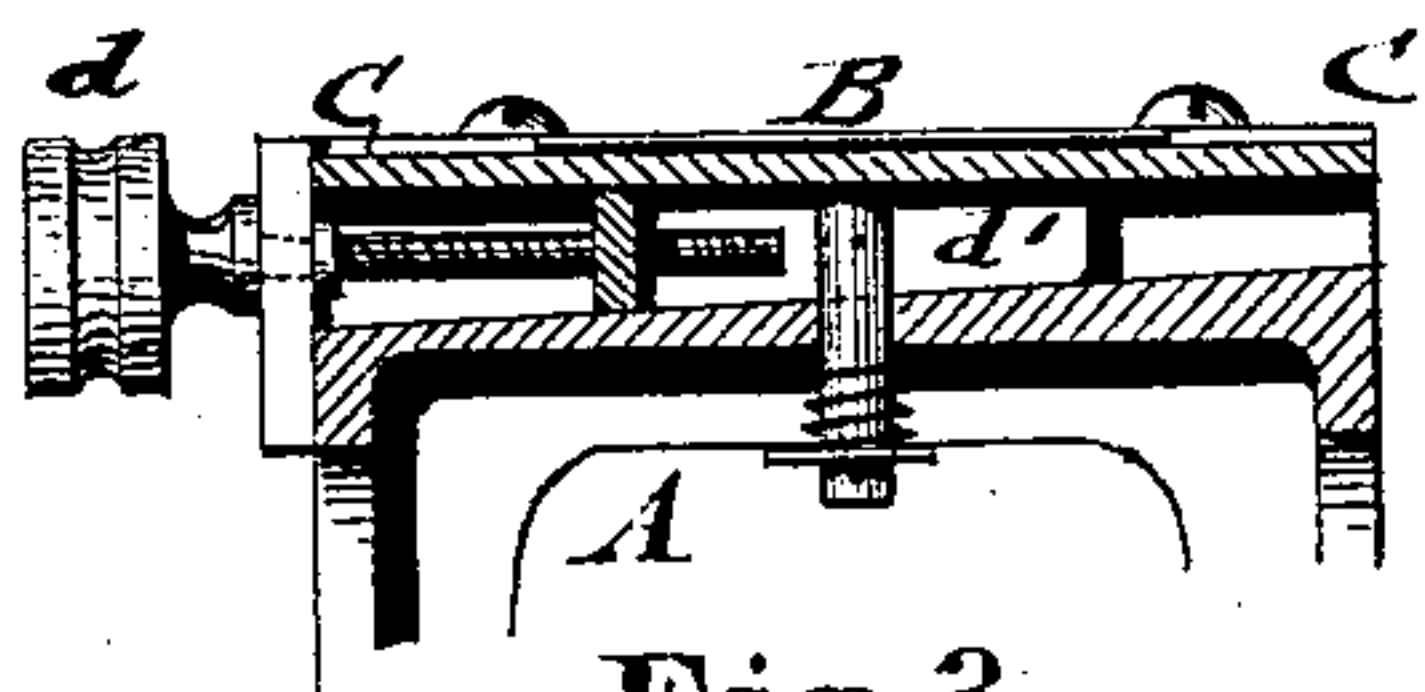
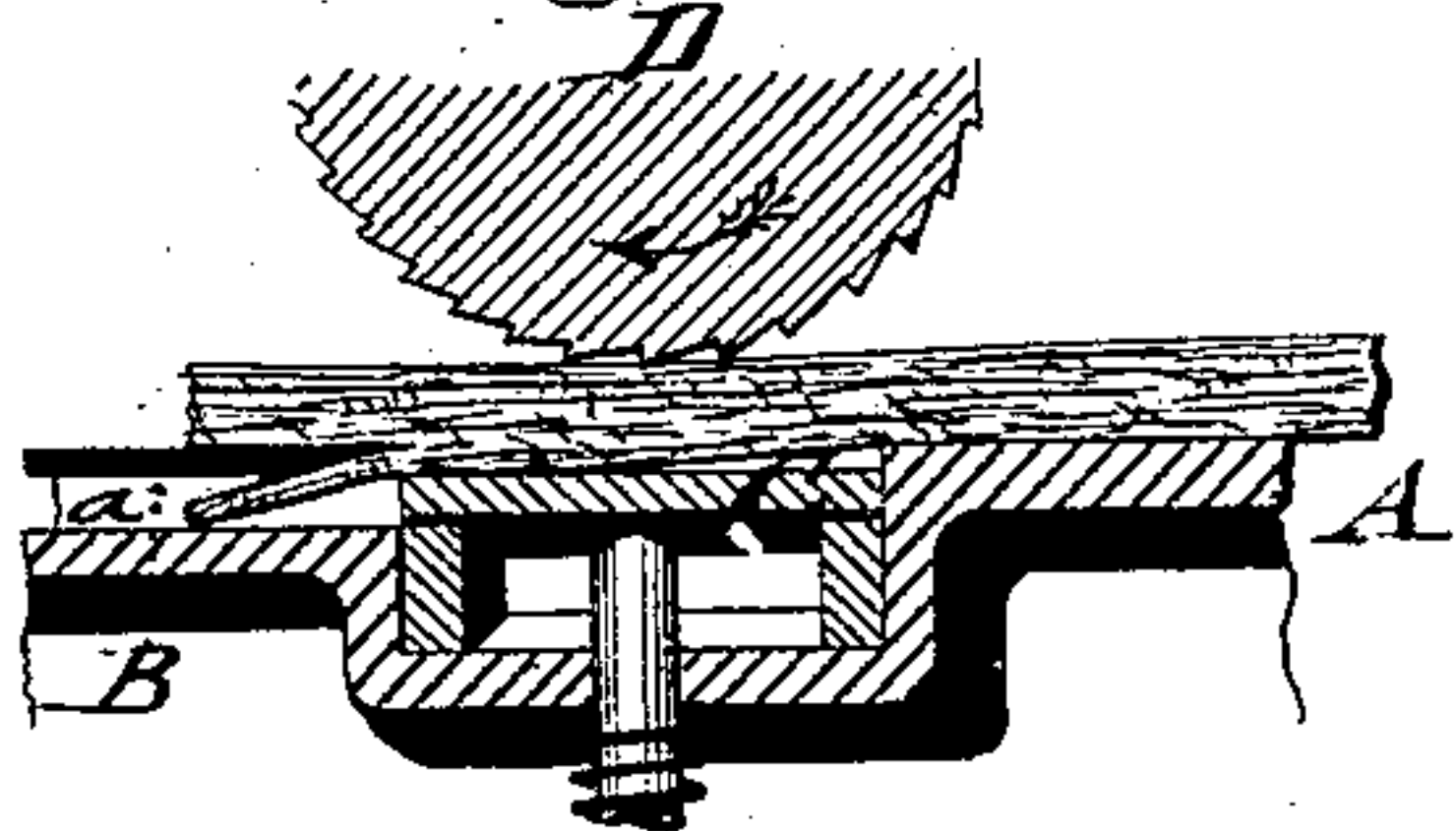


Fig. 3.

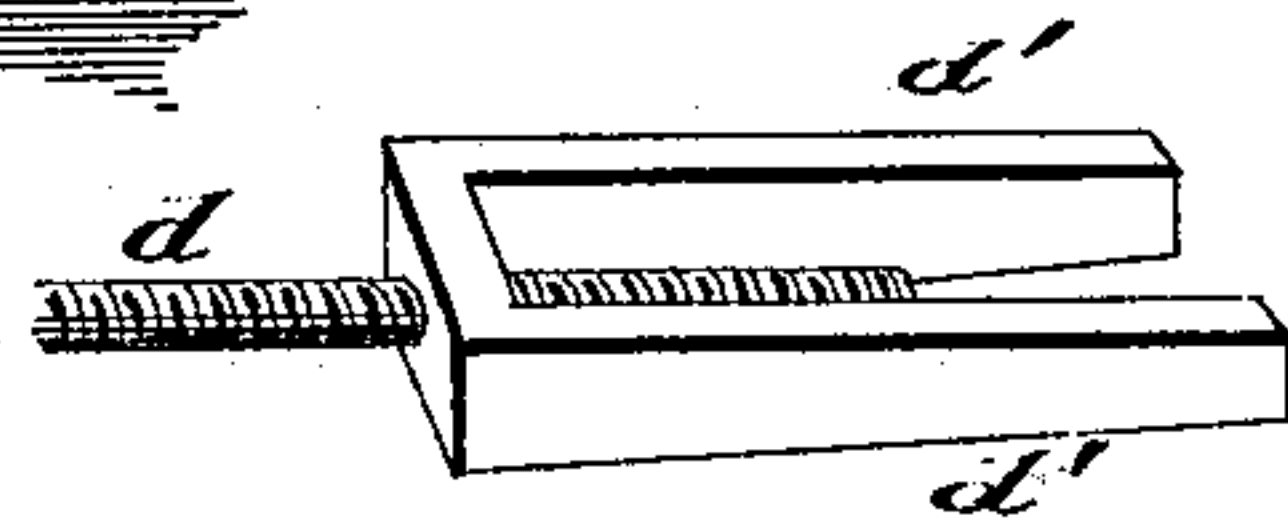


Fig. 5.

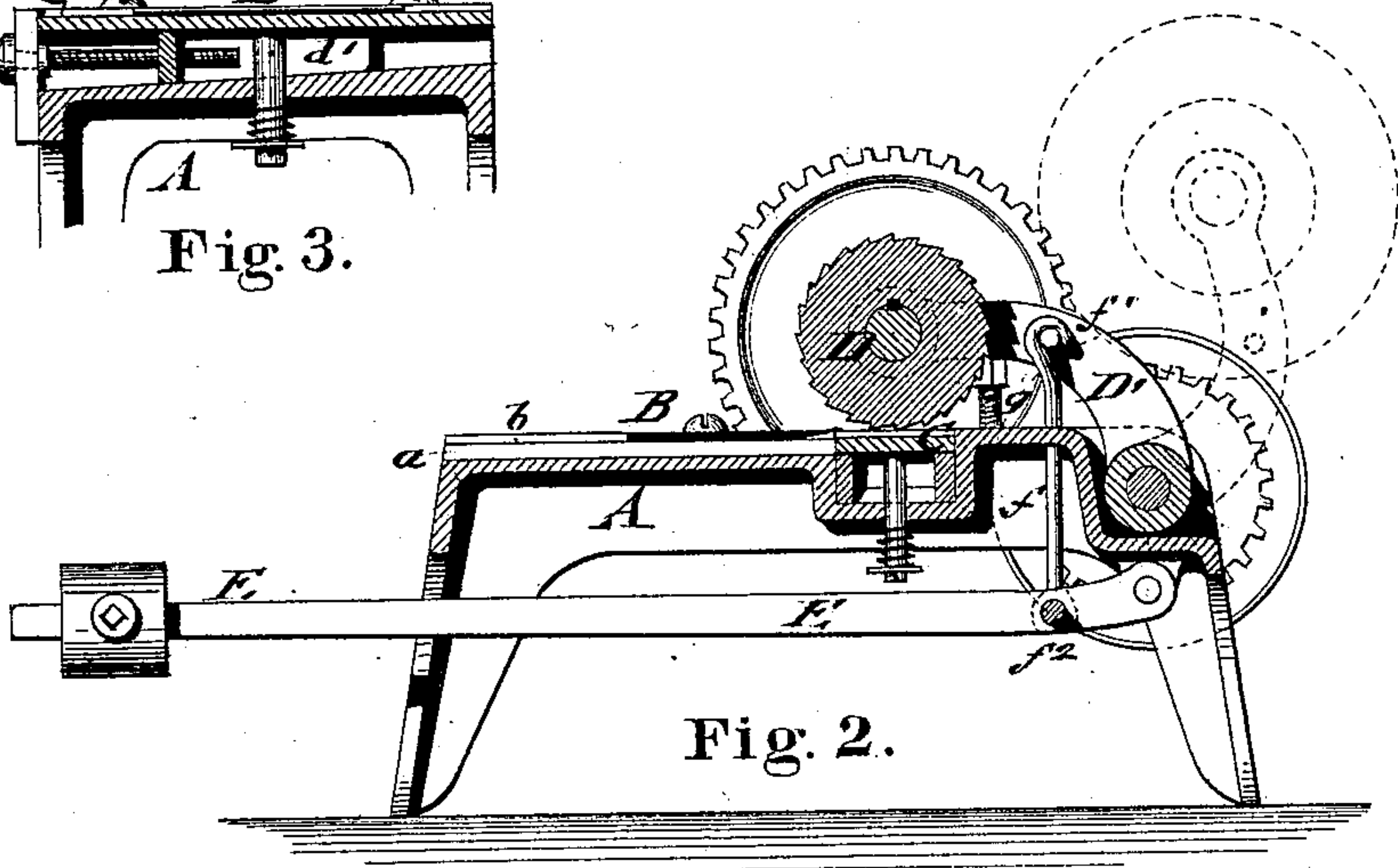


Fig. 2.

WITNESSES.

W. Sedgwick
Alex F. Roberts

INVENTORS.

M. M. Goldsmith
G. M. Cruickshank
S. Brown

Mumford

UNITED STATES PATENT OFFICE.

MARTIN M. GOLDSMITH, OF NEW YORK, N. Y., GEORGE M. CRUICKSHANK, OF PROVIDENCE, AND STEPHEN BROWN, OF GREENE, R. I., ASSIGNORS TO THE GOLDSMITH & WHEATLEY MANUFACTURING COMPANY, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR CUTTING HORN INTO SHEETS.

Specification forming part of Letters Patent No. 200,050, dated February 5, 1878; application filed January 4, 1878.

To all whom it may concern:

Be it known that we, MARTIN M. GOLDSMITH, of the city, county, and State of New York, GEORGE M. CRUICKSHANK, of the city and county of Providence, and State of Rhode Island, and STEPHEN BROWN, of Greene, in the county of Kent and State of Rhode Island, have invented a new and Improved Machine for Cutting Horn into Sheets, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a perspective view of our improved machine for cutting horn into sheets; Fig. 2, a vertical longitudinal section; Fig. 3, a detail vertical transverse section, showing mechanism for adjustment of gage-plate. Fig. 4 is a vertical longitudinal section, on an enlarged scale, of cutting-knife, gage-plate, and feed-roller; and Fig. 5, a detail perspective view of the wedge-shaped slide-piece for regulating the gage-plate.

Similar letters of reference indicate corresponding parts.

This invention is intended to furnish, for the purpose of cutting off horn into sheets of any thickness and width, an improved machine by which the cutting is accomplished in superior manner without injuring the surface of the horn.

The splitting-machines hitherto employed for this purpose have been found objectionable on account of the injury to the surface of the horn sheet by the fluted drum or feed-roller, which, being arranged below the knife, damages the face of every piece cut off. To avoid this the toothed feed-roller is placed above the knife, so as to press during the entire cutting off of the sheets always on the top surface, so that the top sheet only is injured; but the lower sheets are planed off throughout without the least injury, and, therefore, well adapted to be used as a substitute for whale-bone.

The invention consists of a grooved table with fixed cutting-knife, adjustable gage-plate in front of the same, and a toothed or fluted feed-roller above the gage-plate.

Referring to the drawing, A represents a table with a groove, *a*, cut out centrally, and having side rails *b*—the latter to hold the knife B, and the former to admit the strip or sheet cut off to pass underneath the knife B. In front of the knife is arranged a vertically-adjustable gage-plate, C, that is regulated by a side thumb-screw, *d*, which engages a sliding and guided wedge-piece, *d'*, of U shape, (shown in Fig. 5,) and carries it along an inclined bottom plate of the table, below the gage-plate, to one side or the other, so as to raise or lower the gage-plate, and set the same to the thickness of the strips or sheets to be cut off from the piece of horn.

In place of the sliding wedge-piece, any other equivalent mechanism for adjusting the gage-plate may be employed.

A fluted or toothed feed-roller, D, is supported in a yoke, D', above the gage-plate, the yoke being pivoted below the surface of the table, so as to admit the driving cog-wheel of the feed-roller D to remain in gear with the actuating cog-wheel, whatever be the thickness of the piece of horn passed through below the same. The yoke is connected by two rods, *f*, hung to pivot-pins *f*¹ of its arms, with a cross-piece, *f*², of a pivoted and weighted lever, E, at the under side of the table A. The pressure of the roller on the horn is regulated by adjusting the weight on the lever, in the customary manner. Two screws, *g*, are arranged below the arms of the yoke, to act as a stop and prevent the roller from dropping on the knife.

When the piece of horn is passed through the machine, the feed-roller presses on the top of the same, and the knife cuts off the strips or sheets from the bottom up, as shown in Fig. 4, until, finally, the top sheet is left. This, from its coarser structure, is useless, and, having received throughout the different cutting operations the pressure of the feed-roller, is thrown away.

The lower strips or sheets of horn are of uniform thickness and strength, and are next split up in a splitting-machine into longitudi-

nal pieces of the required width, the strips so obtained being free from the injuries received by the cutting-machines heretofore employed, and of a higher degree of elasticity and durability.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a machine for cutting horn into sheets, the combination of a fixed cutting-knife with a vertically-adjustable gage-plate in front of the same, and with a revolving feed and pressure roller above the gage-plate, substantially as described, and for the purpose specified.

2. In a machine for cutting horn into sheets, the combination, with a supporting-table having longitudinal center groove and side rails,

of a fixed knife resting on the rails, of a vertically-adjustable gage-plate in front of the knife, and of a revolving feed-roller supported in a swinging and weighted yoke or frame, substantially as and for the purpose described.

MARTIN M. GOLDSMITH.

GEO. M. CRUICKSHANK.

STEPHEN BROWN.

Witnesses to signature of M. M. Goldsmith:

C. SEDGWICK,

J. H. SCARBOROUGH.

Witnesses to signature of G. M. Cruickshank:

GEO. E. BARNARD,

RICHARD B. COMSTOCK.

Witnesses to signature of Stephen Brown:

H. C. COLE,

WM. ROWAND.