[117.]

FREDERICK MYERS.

Improvement in Combined Sad and Fluting Iron.

No. 119,471. Patented Oct. 3, 1871.

Fig. 1.

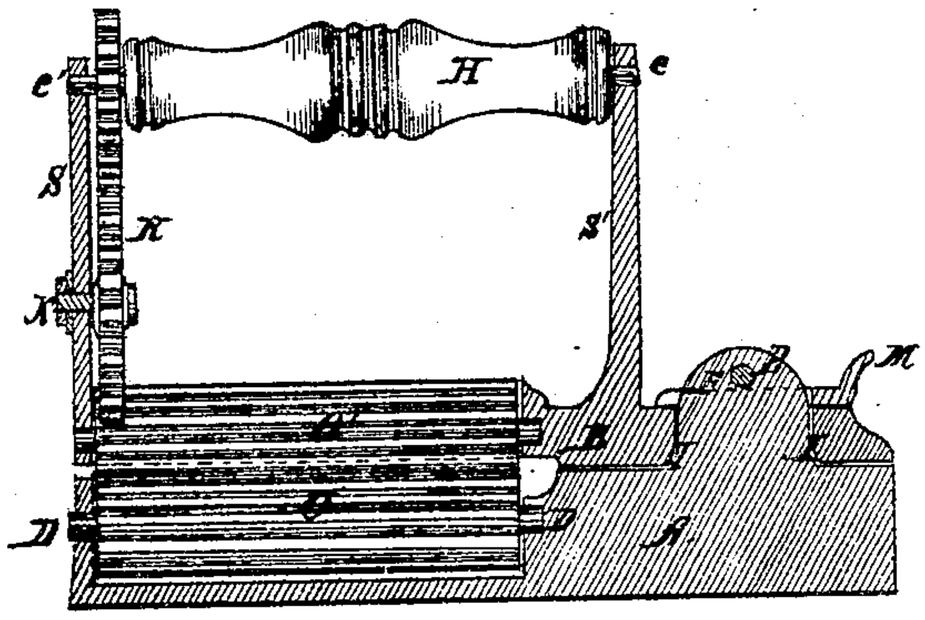


Fig. 2

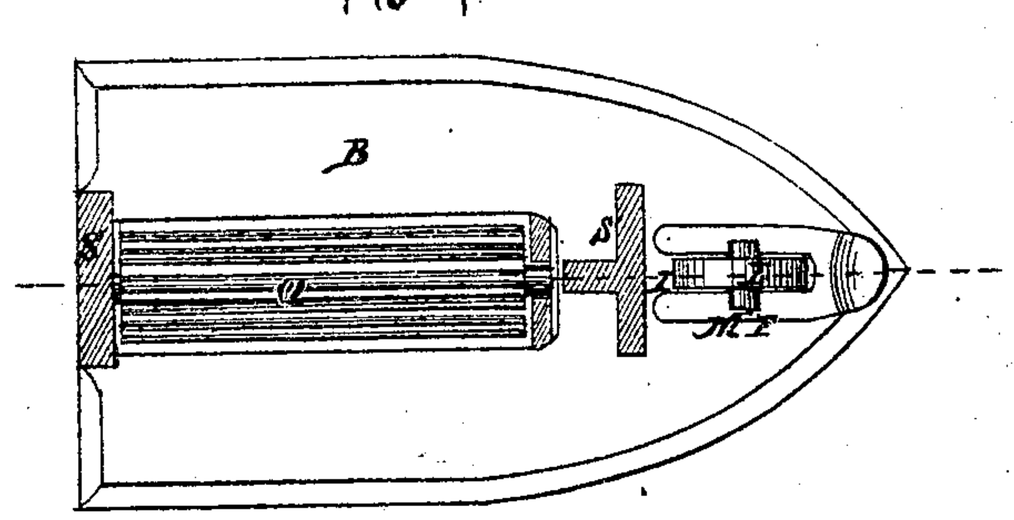
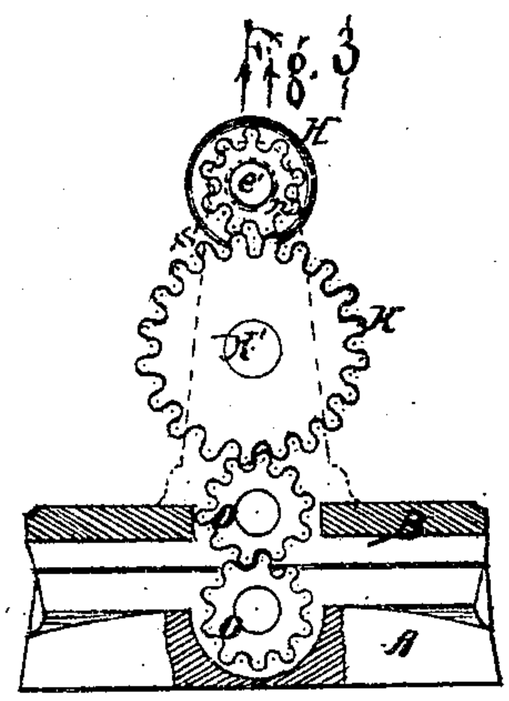


Fig. 3



Witnesses.

R. A. Van Rensselaer,

Philip Van Rensselaer

Inventor:

Frederick Myers.

UNITED STATES PATENT OFFICE.

FREDERICK MYERS, OF NEW YORK, N. Y.

IMPROVEMENT IN COMBINED SAD AND FLUTING-IRONS.

Specification forming part of Letters Patent No. 119,471, dated October 3, 1871.

To all whom it may concern:

Be it known that I, FREDERICK MYERS, of the city and State of New York, have invented a new and Combined Sad and Fluting-Iron; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My improvement relates to that class of combined sad and fluting-irons in which are combined a lower or sad-iron plate with an upper or handled plate provided with intervening fluted rollers. My invention consists in so constructing the fluting-rollers and connecting the upper and lower plate, that when the two are not rigidly connected for use as a sad-iron the fluting-rollers may be rotated in order that the fabric to be fluted may be gradually subjected to the action of the fluting-rollers; and also in a novel device by which the two plates may be rigidly connected when desired for use as a sad-iron, and yet when desired for fluting may be readily disconnected so as to admit of the rollers being rotated freely on their centers.

Figure 1 is a longitudinal sectional elevation of my improved combined sad and fluting-iron, cut away from the point to the center to exhibit the holder H. Fig. 2 is a plan view of the same, and Fig. 3 is an end view.

Similar letters of reference indicate corresponding parts.

A is the lower or sad-iron plate, and B the upper or handle-plate. Both are made of cast-iron or other desirable metal. The plate A is shaped in the form of and finished on the bottom to correspond with the ordinary sad-iron. The upper surface for about half the length is hollowed out lengthwise with the plate, of such a depth as not to injure the bottom face, and at the same time be large enough to receive one of the fluting-rollers and allow the same to revolve freely therein, having its bearings at each end, as indicated at D. Immediately in front of this fluted roller a broad stud, E, rises vertically, having a pin, F, inserted, projecting out at each side. And I may dispense with the stud E and put in its stead two upright studs at right angles to each other, the upper plate being provided with recesses to fit over the same, by which means the handle-plate B is held more firm and prevents the rollers from coming too close together, thus allowing them to rotate as freely when the two plates are connected or disconnected. The upper plate B has an opening to correspond with the hollow space in the lower plate A, to admit and allow the upper fluting-roller to revolve freely therein on its bearings, to correspond with the lower roller in the upper surface of the sad-iron plate A. Between the inner end of these rollers and the point of the plate is a longitudinal mortise, I, extending through the plate vertically, for the reception of the stud E. The object to be attained by the use of corrugated rollers is the gradual subjection of the fabric to be fluted to the action of the fluting-rollers, or cause the corrugations to operate on the fabric successively. M is a slotted sliding wedge; its slot embraces the upward projecting portion of the stud E, and the upper surface of each arm of the wedge engages with the under surface of the pin F. When forced forward it rigidly connects the two plates, but admits of their separation when withdrawn. O O represent the corrugated rollers of brass or other non-corrosive metal for protecting the goods from rust. When the two plates are rigidly connected they constitute a sad-iron. The upper plate B has two vertical uprights S S′, supporting at their upper ends a loose handle, H, which has its bearings at E E′, having at one end a gear-wheel, N. At the conter of the vertical upright S is a movable wheel, K, held in position by the stud K′. The wheel N on the loose handle connects with the wheel K, and the wheel K connects with the upper fluting-roller O, which connects with the lower roller O. When disconnected the fluting-rollers may be readily separated for the insertion of the fabric to be fluted, after which the upper roller is to be brought in contact with the lower roller corresponding with the upper; the handle H is then turned with the hand grasping it, which operation rotates the wheel K. This wheel connecting with the upper roller operates the lower roller; thus the two rollers are made to revolve by turning the loose sad-iron handle in the upper plate, drawing the fabric through until all is completed. By this means the fabric is drawn gradually into the flutes and is not liable to be strained or torn during the process.

I do not wish to confine my invention to the particular construction of the parts whereby I am enabled to operate the rollers with the handle,

as I may work them by attaching a crank to the handle or the wheel K, and also have the upper roller separated from the lower roller for the insertion of the fabric to be fluted without removing the entire upper plate. And I may, if desired, construct a fluting-machine in the same manner, and dispense with the sad-iron plate and put in its stead a metal plate of sufficient thickness to heat the rollers by placing it on the stove the same as when used in the form of a sad-iron. By this novel device of heating the fluting-rollers I dispense with the trouble of heating extra bolts and inserting them in the rollers as is done with the fluting-machines now commonly used. I may, if desired, operate the lower roller by attaching the upper roller, or in its stead a convex fluted plate, to a movable swinging frame operated by the handle or some other known device, so as to swing transversely to the length of the lower roller.

I am aware that it is not new to make round or corrugated fluting-rollers to be worked by revolving one on the other, and I do not therefore claim such broadly; but

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

1. The improved sad and fluting-iron, consisting of the sad-iron plate A, handled plate B, with intervening fluting-rollers to admit of a free rolling movement of the upper and lower rollers when in use for fluting, and the device for rigidly connecting the two when used as a sad-iron, substantially as and for the purposes specified.

2. The plate A, by which the fluting-rollers are heated, in combination with the vertical stud E and wedge M, substantially as and for the purposes herein set forth.

3. The handled plate B, in combination with the loose handle H, having at one end a gear-wheel, N, connecting with the wheel K, the said wheel connecting with the upper fluting-roller and operating the two rollers in either direction, when brought in contact with each other, by rotating the loose handle in a direction to accomplish the same, substantially as shown and described.

FREDERICK MYERS.

Witnesses:
R. A. VAN RENSSELAER,
PHILIP VAN RENSSELAER.