

M. A. PERRIGO.
Fluting Beds and Rollers.

No. 212,976

Patented Mar. 4, 1879

Fig. 1.

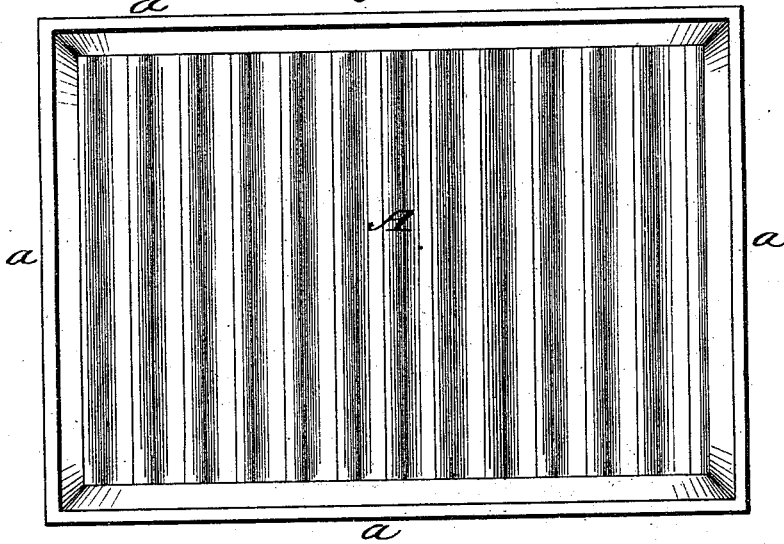


Fig. 2.

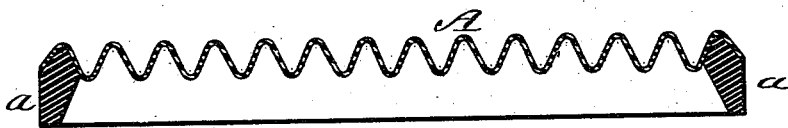


Fig. 3.

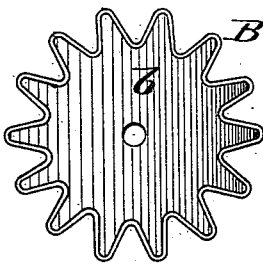
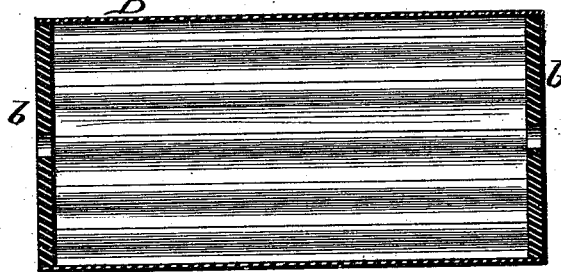


Fig. 4.



WITNESSES

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MORGAN A. PERRIGO, OF GROTON, NEW YORK.

IMPROVEMENT IN FLUTING BEDS AND ROLLERS.

Specification forming part of Letters Patent No. **212,976**, dated March 4, 1879; application filed January 6, 1879.

To all whom it may concern:

Be it known that I, MORGAN A. PERRIGO, of Groton, in the county of Tompkins and State of New York, have invented a new and valuable Improvement in Fluting Beds and Rollers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an under-side plan view of the fluting-bed. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is an end view of the roller. Fig. 4 is a sectional view of the roller.

This invention has relation to fluting beds and rollers composed of sheet metal; and the invention consists of a bed composed of sheet-copper, having the flutes or corrugations pressed or stamped out by suitable dies or machinery, and having cast thereto a flange or rim extending around its sides or edges.

The invention further consists of a hollow corrugated roller of sheet-copper, having secured to its ends by casting heads of brass or other suitable metal, as will be hereinafter more fully described.

In the accompanying drawings, A represents the fluting-bed, composed of sheet-copper, the flutes being formed in any of the well-known ways, either by dies or stamping or crimping machines. Around the edges of the bed A is a cast-metal flange, *a*, preferably of brass, as it requires less heat to melt it to the desired degree for casting than the other metals, so that during the process of uniting the two metals the copper is not liable to melt or blister by the heat of the molten brass. This cast-metal flange or rim *a* greatly strengthens the sheet-copper bed A, and prevents the flutes from becoming injured by the pressure thereon.

The roller B, which may also be formed of sheet-copper, in the same manner as the flutes

of the bed A, has secured to its ends Bab-bitt metal heads *b*; or, if desired, brass heads may be substituted.

The heads *b* stiffen the flutes of the roller, and as there is no core passing through the roller its entire length the sheet metal retains its flexibility, making a much lighter and cheaper roller, and one easily operated.

The process or mode of manufacturing my fluters which I prefer to employ is as follows: The flutes in the sheet-metal bed are formed by passing the same between two fluted rollers, and after the flutes are formed the metal sheet is placed in the mold, forming a part of the mold, which is made of sand, after which the molten metal is poured into the mold to form the brass rim, adhering to the copper fluted face at the same time. The roller is formed and made in the same manner.

The sheet-metal bed, with its cast-metal rim, is sufficiently strong to bear the required amount of pressure, and the cast-metal rim greatly stiffens and strengthens the flutes in the bed, making much cheaper fluting devices than those in which the entire bed is cast from metal, while the copper is always free from rust or corrosion, and presents a bright and clean surface to the fabric to be fluted.

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

1. A fluting-bed composed of sheet-copper, and having cast thereto a flange or rim around its outer edge of brass or other cast metal, substantially as and for the purpose described.

2. A hollow fluting-roller composed of sheet-copper, and having cast to the ends thereof heads of brass or other suitable metal, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MORGAN A. PERRIGO.

Witnesses:

S. C. REYNOLDS,
NELSON HARRIS.