

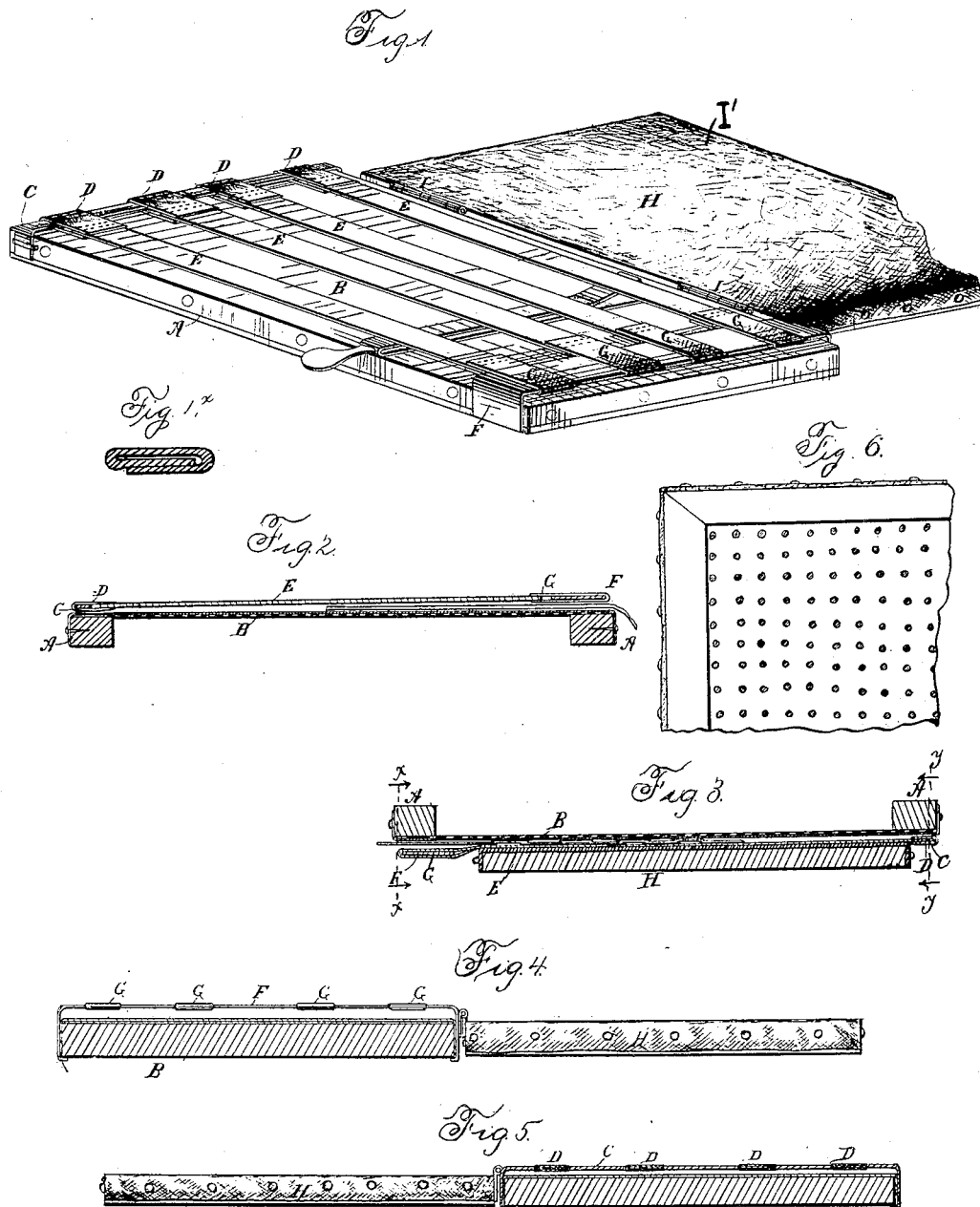
(No Model.)

J. I. D. & L. Y. WOODRUFF.

PLAITING APPARATUS.

No. 344,335.

Patented June 22, 1886.



WITNESSES
H. L. Ourand
Edward Stanton

INVENTORS
John I. D. Woodruff
Launcy Y. Woodruff
By Louis Ragger & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN I. D. WOODRUFF AND LAUNICY Y. WOODRUFF, OF ST. CHARLES, KY.

PLAITING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 344,335, dated June 22, 1886.

Application filed March 9, 1886. Serial No. 194,540. (No model.)

To all whom it may concern:

Be it known that we, JOHN I. D. WOODRUFF and LAUNICY Y. WOODRUFF, residents of St. Charles, in the county of Hopkins and State of Kentucky, have invented certain new and useful Improvements in Plaiting Apparatus; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view showing our improved plaiting apparatus open, the press-board being turned back in position for use. Fig. 2 is a longitudinal sectional view taken through the plaiting-board, with material in position for operation and with the press-board raised. Fig. 3 is a longitudinal sectional view showing the device inverted and with the material in position for pressing. Fig. 4 is a transverse sectional view taken on the line *x x* in Fig. 3, and Fig. 5 is a transverse sectional view taken on the line *y y* in Fig. 3. Fig. 6 is a view of the under side of the plaiting-board, showing the frame and its perforated covering; and Fig. 1^x is a cross-section, on an enlarged scale, of one blade of the plaiting-knife.

The same letters refer to the same parts in all the figures.

This invention relates to plaiting devices for forming ornamental creases in dress fabrics; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency, and in which the fabric, having been plaited or creased, may be subjected to ironing or flattening on the "wrong" side of the goods, thus preventing injury to the "right" or finished surface.

The invention further consists in an improved construction and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A designates a frame, preferably rectangular in shape, to the upper side of which is attached a sheet, B, of either solid or perforated sheet metal or of sheet metal covered with textile material,

or of textile fabric alone, or of any other suitable material or combination of materials. Suitably attached to one end of said frame is a strap, C, which may be made of sheet metal or any other suitable material, and which is to be slightly raised above the level of the covering-sheet B, and to this strap C are attached, by means of loops D, of any suitable description, the ends of a series of straps or aprons, E, which may be constructed of any suitable textile fabric, and the upper sides of which may be graduated or furnished with scales or gages of any suitable denomination. Of these straps or aprons any suitable number—from two and upward—may be employed, according to the width and general character of the material to be operated upon.

Attached to the frame A, at the end opposite to the end at which the strap C is secured, is a bridge-piece, F, which may be constructed of sheet metal, and which is somewhat raised above the level of the surface-sheet B of the device. To this bridge-piece the free ends of the straps or aprons E are attached by means of elastic loops or bands G. Sometimes, however, the straps or aprons E may be made sufficiently flexible or elastic to enable us to dispense with the elastic loops G, and we desire to reserve the privilege to do so when practicable.

H is a board, which is attached to the upper edge of the frame A by means of hinges I I, which will enable the said board to be folded flat over or upon the covering-sheet B of the frame A. The under side of the folding board H is covered with flannel, I', or with textile fabric of any suitable description which will form a good surface for the pressing or ironing of the goods which are to be plaited in our improved apparatus.

The plaiting knife or tongs used in connection with our invention is made of tin or other suitable sheet metal by bending or doubling a strip of such material of suitable length upon itself laterally, so as to form a triple thickness of material, as will be seen in Fig. 1^x. The strip is then folded so as to leave one end protruding beyond the other, and a handle may then be attached to the folded end, whereby the knife may be conveniently manipulated.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood.

5 The general construction and arrangement of parts are simple and inexpensive. The material which is to be plaited is inserted under the strap C and bridge F, and is then folded by means of the herein-described knife or
10 tongs in such a manner as to form the desired plaits or creases. The board H is then folded over or upon the folds or creases of the fabric. The frame is then inverted and a hot flat or smoothing iron applied to the under side of
15 the sheet B, thus pressing or ironing the plaited fabric on the wrong side of the goods, and causing the necessary permanency of the creases without injury to the right side of the fabric. The flexible or elastic loops whereby
20 the ends of the straps or aprons E are attached to the bridge-piece F enable the said straps or aprons to yield or give when the plaiting-knife is turned or manipulated in the act of forming the plaits or creases, while at the
25 same time the said plaits or creases, when formed, will be securely held by the action of the said elastic bands or aprons. When formed and pressed, the plaits or creases will readily pass out under the raised bridge-
30 piece F.

It will be readily seen that in the manufacture of this article or device various changes might be introduced without materially departing from the principle, and we would,
35 therefore, have it understood that we do not limit ourselves to the precise construction and arrangement of parts herein described, but reserve to ourselves the right to all such changes and modifications as may be resorted to without departing from the spirit of our invention.
40

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

45 1. In a plaiting apparatus, the combination of a rectangular frame, a sheet of thin material, metal or fabric, secured upon one side of

said frame, and extending over the aperture formed by the rails thereof, and flexible straps or aprons, substantially as and for the purpose set forth. 50

2. In a plaiting apparatus, the combination of flexible straps or aprons, a plaiting-board, and a fabric-covered press-board hinged to said plaiting-board, substantially as and for the purpose set forth. 55

3. In a plaiting apparatus, the combination of a frame, a sheet of perforated metal attached to the upper side of the same, one or more flexible or elastic holding straps or aprons, 60 and a hinged folding board, one side of which is covered with textile material, substantially as and for the purpose set forth.

4. As an improvement in plaiting apparatus, the combination of a frame, a perforated sheet 65 of metal and a sheet of textile fabric attached to the upper side of the same, the transverse holding straps or aprons connected by means of loops to a strap at one end of said frame, and by means of flexible or elastic loops to a bridge-piece at the other end of said frame, a 70 folding board hinged to the upper edge of the said frame and having its one side covered with textile material, and a folding knife or tongs having blades of unequal length adapted for insertion under the aprons of the device, 75 substantially as and for the purpose herein shown and specified.

5. In a plaiting apparatus, a plaiting knife made of a sheet of thin metal folded upon itself laterally, forming a strip of several thicknesses, which strip is bent to form two prongs of unequal length, and attached by its bent portion to a suitable handle, substantially as described and set forth. 80 85

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

JOHN I. D. WOODRUFF.
LAUNICY Y. WOODRUFF.

Witnesses:

JNO. E. PORTIS,
JAMES McNAMARA.