



# United States Patent Office.

GEORGE R. HOUGHTON, OF FLINT, MICHIGAN.

Letters Patent No. 94,211, dated August 31, 1869.

## IMPROVEMENT IN APPARATUS FOR FLUTING AND QUILLING.

The Schedule referred to in these Letters Patent and making part of the same.

### To whom it may concern:

Be it known that I, GEORGE R. HOUGHTON, of Flint, in the county of Genesee, and State of Michigan, have invented a new and useful Improvement in a Combined Fluting, Plaiting, and Quilling-Apparatus; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

The design of this invention is to produce an adjustable apparatus, by the use of which adjustment the apparatus can be used for either fluting, plaiting, or quilling textile fabrics, as may be desired, and consists in the arrangement of adjustable bridges upon a proper table, so arranged that they may be raised or lowered at will, to suit the various sizes of fluting or quilling-rods, and in the necessary slides, blocks, and screws, by means of which this adjustability is obtained.

A, in the drawings, represents a suitable table or bed, upon which are secured the slides B, working upon screws *a*, passing through the slots *b*.

These slides should be of the height or thickness of the smaller fluting-rods *h*, to be used, and upon the slides rest the bridges C, and are secured in place by the thumb-nut and screws *c*.

A series of holes is made through the table or bed, so that these bridges may be placed upon the slides at any required distance apart, as may be desired.

Should it be desired to use larger fluting or quilling-rods, *h'*, the slides may be pushed out from under the

bridges and blocks D, to correspond with the diameter of the larger rods inserted under the ends of the bridges, or thinner blocks may be interposed between the slides and bridges, or the bridges may be raised as required, by set-screws, suitably arranged and attached for the purpose.

The drawing shows the apparatus in use in fluting and plaiting, *d* representing the plaiting, and *e*, the fluting, and by the interposition of blocks *f* under the bridges, at stated intervals, the fluting may be varied with plain surfaces *g*.

The operation of quilling is the same as that of fluting, except in this; that the latter operates the whole width of the fabric, while the former only operates upon a portion of it, like a border, or frill to a cap. This is done by allowing that portion of the fabric which is not to be operated upon, to remain outside the bridges, on either side, while the part to be operated upon is carried under the bridges.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the table or bed A, slide B, screws *a*, bridges C, rods *h*, thumb-nut and screws *c*, and blocks D, when arranged and operating substantially as and for the purpose described.

GEO. R. HOUGHTON.

### Witnesses:

JAS. I. DAY,  
H. F. EBERTS.