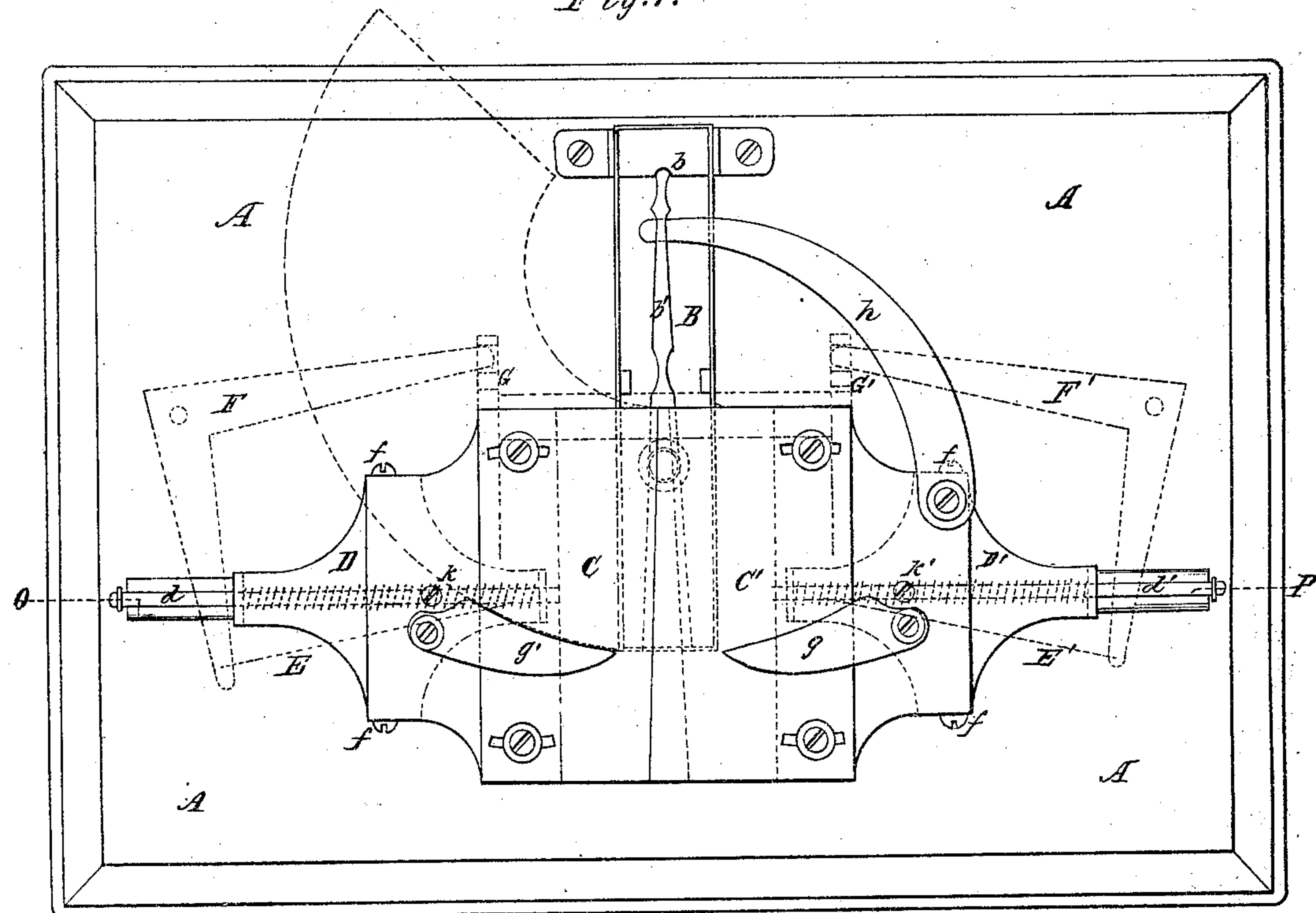


R. I. Smith.
Fan Mach.

N^o 59,867

Patented Nov. 20. 1866.

Fig. 1.



Witnesses.
Henry B. Asherton.
J. P. S. [Signature]

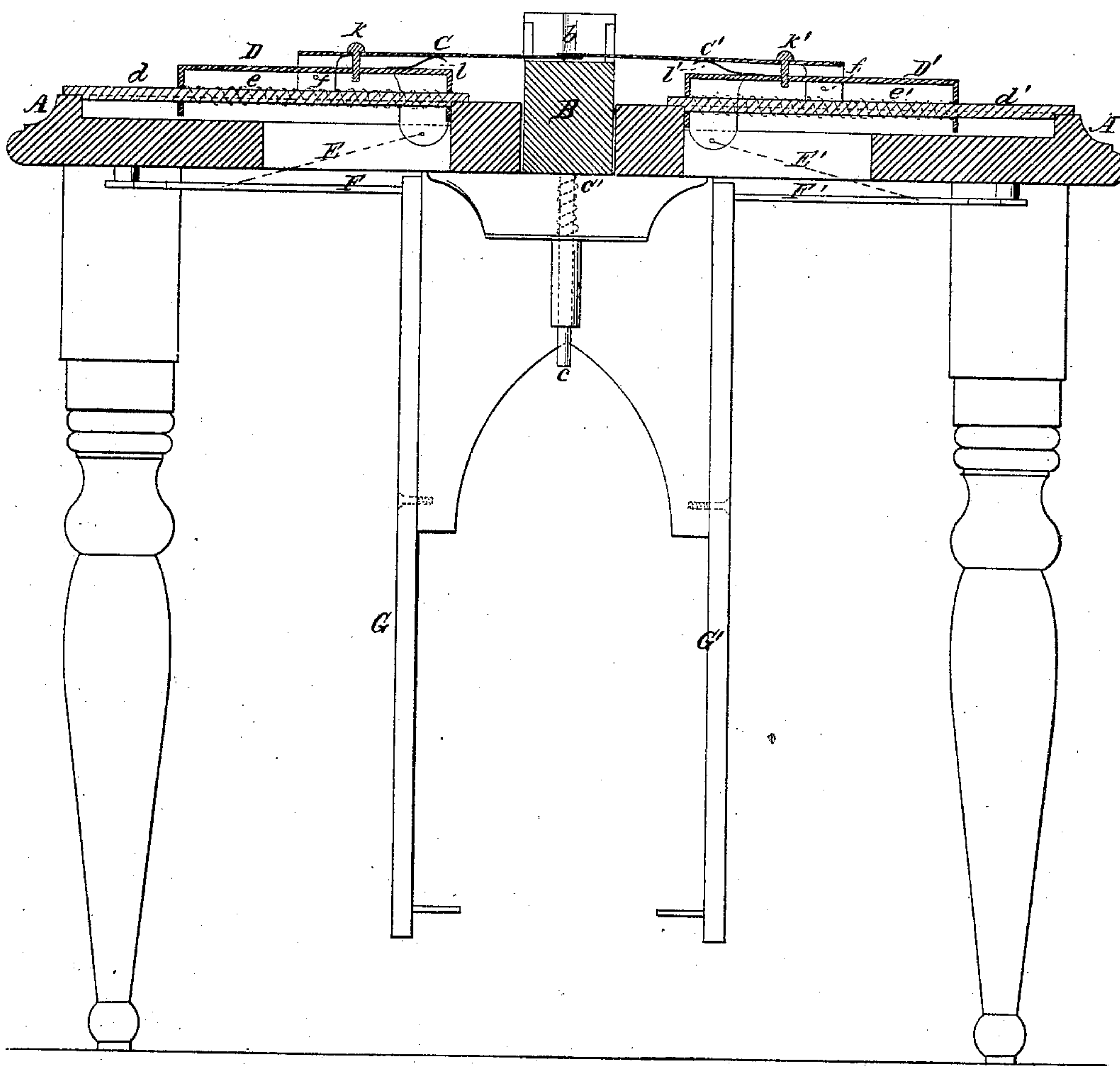
Inventor.
Rowell T. Smith.

R. I. Smith.
Fan Mach.

N^o 59,867.

Patented Nov. 20, 1866.

Fig. 2.



Witnesses.

J. P. Smith

Henry B. Whitton

Inventor.

Roswell T. Smith.

United States Patent Office.

IMPROVEMENT IN MACHINES FOR FOLDING PAPER FANS.

ROSWELL T. SMITH, OF NASHUA, NEW HAMPSHIRE.

Letters Patent No. 59,867, dated November 20, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ROSWELL T. SMITH, of the city of Nashua, county of Hillsborough, and State of New Hampshire, have invented a new and useful Improvement in Machines for Folding Fans of paper or cloth, and or folding or crimping paper or textile fabrics; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 shows a plan, and Figure 2 a vertical section on the line O P.

My improvement consists in so arranging and constructing a series of vibrating or sliding adjustable folding-blades, that at each vibratory or sliding motion a certain portion of the material to be folded or crimped will be alternately covered and released by the folding-blades, as will be shown in the following more concise and extended description of the machine and of its operation, and by reference to the drawings herewith submitted.

My machine consists of a table or bench, A, within which is an adjustable vertical gauge B, with a groove *b* in its outer end for holding the ends of the sticks *b'* (shown in the drawing in red ink.) The gauge B is held in its place and kept close to the under side of the blades C C', and to the material as it is folded, by means of the slide *c* and spiral spring *c'*. On either side of this vertical gauge B are arranged the blade-carriers D D', sliding upon rods or ways *d d'*, and so constructed as to receive a rectilinear motion in a direction perpendicular to the vertical gauge B by means of the connections E E', knee-levers F F', and foot-levers G G'. Each blade-carrier is held in its normal condition (as shown in the drawing) by means of the spiral springs *e e'*. To these carriers are attached, by means of the pivots *f f f f*, the adjustable folding-blades C C', gauged and held in their proper position by the screws *k k'* and springs *l l'*, to these blades are attached the folding-gauges *g g'* and levelling gauge *h*.

The operation of my machine is as follows: The material to be folded having been cut in the form of a segment of a circle, either more or less in diameter, according as the folding-blades are more or less inclined to each other, the folding-blade C' is so far removed from the blade C by means of the foot-lever G' as to admit of the outside stick with its attached segment of paper or cloth (shown in the drawing in blue ink) to be placed upon the top of the vertical gauge B and over the folding-blade C, both of which are then pressed down by hand to admit of the blade C' passing over both stick and material. The material is then folded accurately by means of the gauge *g* over the blade C', which being then pressed down on the vertical gauge B, the opposite blade C is made to recede from the blade C' by means of the foot-lever G, and allowed immediately to resume its normal condition above and over the material and blade C'; the material is then folded accurately by means of the gauge *g'* over the blade C, another stick being then secured to the material, whether paper, cloth, or other textile fabric, by means of glue, cement, or rivets. The above operation is repeated until the fan is completely and accurately folded.

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

1. The alternately sliding or vibrating folding-blades C C' or their equivalents, when used for folding or crimping paper or textile fabrics, substantially as herein set forth.
2. The alternately sliding or vibrating folding-blades C C', in combination with the vertical gauge B or its equivalent, when used for the purposes substantially as herein set forth.

ROSWELL T. SMITH.

Witnesses:

HENRY B. ATHERTON,
J. P. S. OTTERSON.