

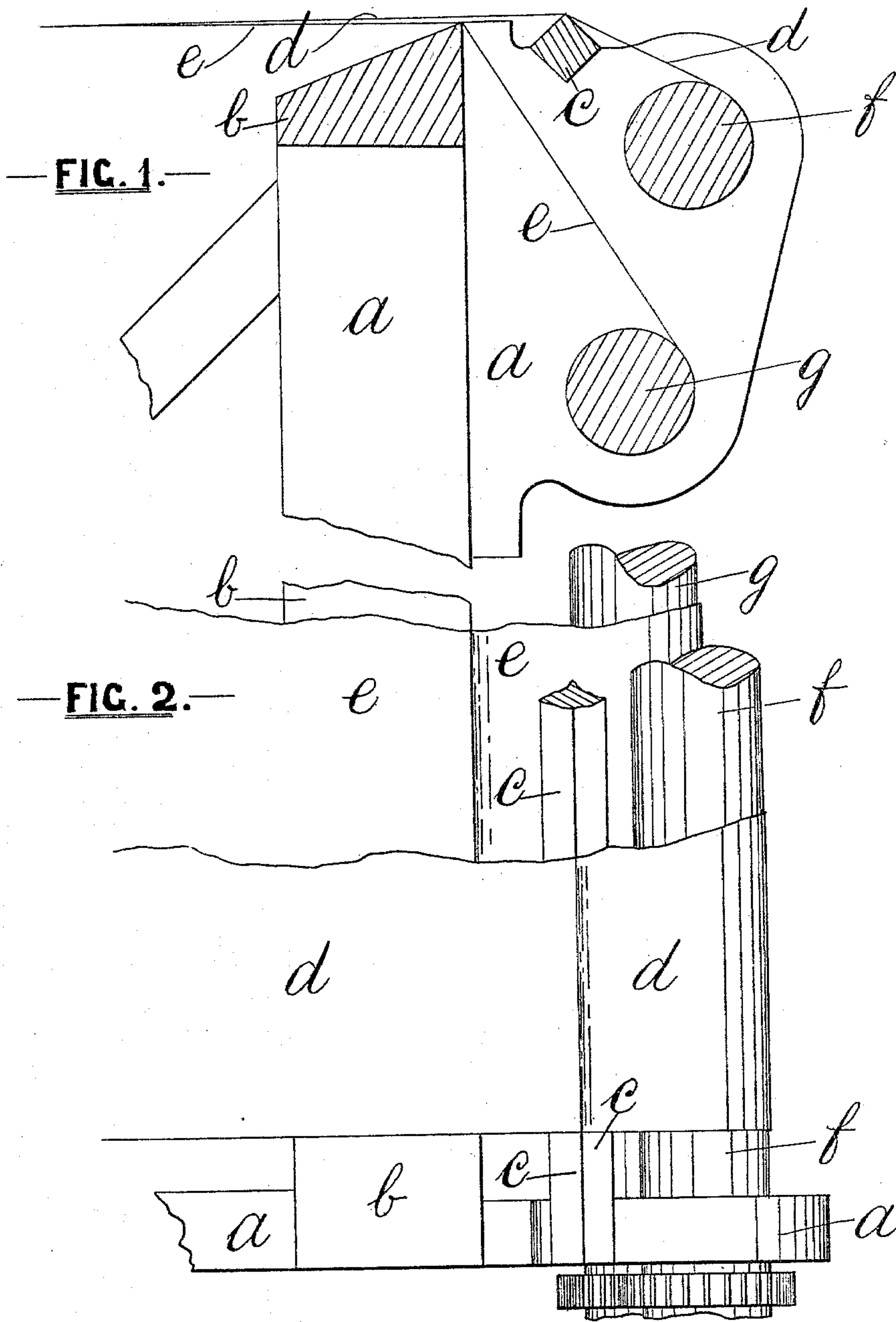
(No Model.)

G. ROGER.

APPARATUS EMPLOYED IN CUTTING THE PILE OF WEFT PILE FABRICS.

No. 597,619.

Patented Jan. 18, 1898.



Witnesses:

George Frederick Gadd.

Arthur Gadd.

Inventor:

George Roger.

Per William Gadd.

Attorney.



# UNITED STATES PATENT OFFICE.

GEORGE ROGER, OF WARRINGTON, ENGLAND.

APPARATUS EMPLOYED IN CUTTING THE PILE OF WEFT PILE FABRICS.

SPECIFICATION forming part of Letters Patent No. 597,619, dated January 18, 1898.

Application filed July 12, 1897. Serial No. 644,246 (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE ROGER, a subject of the Queen of Great Britain, residing at Warrington, in the county of Lancaster, England, have invented new and useful Improvements in Apparatus Employed in Cutting the Pile of Weft Pile Fabrics, of which the following is a specification.

The improvements relate to apparatus employed in connection with cutting the pile of weft pile fabrics, wherein two or more lengths of cloth overlapping each other are stretched upon one cutting-frame in manner such as is described in the specification of Letters Patent of the United States granted to me and numbered 504,441 and dated September 5, 1893; and the improvements have for their object to obviate an evil hitherto for the most part attendant upon the cutting of overlapping lengths of fabric, and to be hereinafter described.

In cutting the pile of weft pile fabrics on the hand-frame the cloth, as is well known, is stretched upon the frame for a portion of its length at a time and is passed at one end of such frame over a board or cross-piece called the "spear," having a sharp edge, which, by causing the cloth to dip sharply, enables the cutting-knife to run out of each race of the pile in uniform manner across the piece; but in cases where two overlapping fabrics are cut at one time it is found in practice that this advantage is not sufficiently obtained in cutting the pile of the upper length of cloth, inasmuch as the double piece of cloth when passing over the spear causes a rounding off of the edge of the upper piece referred to in place of the sharp angular bend required, and consequently the running out of the knife from the races of the pile of the upper piece is for the most part unsatisfactory, producing results which detract from the appearance of the finished fabric. To obviate this defect and to carry out my improvements, I employ apparatus for holding the pieces of cloth in stretch, which I will proceed to describe with reference to the accompanying sheet of drawings, wherein—

Figure 1 is a longitudinal section, and Fig. 2 a plan view, of part of one end of a cutting-

frame furnished and arranged in accordance with my invention.

The same letters indicate corresponding parts wherever they occur.

Upon any convenient part of the frame *a*, and by preference behind the ordinary spear *b*, as shown, I mount a special and extra spear *c*, which may be of metal, wood, or other substance, as may be found most convenient, and of any suitable shape in cross-section, but so as to present the requisite sharpness of edge. This special spear is preferably arranged at such position vertically that the upper fabric *d* is lifted from contact with the lower fabric *e*, as shown, in order to avoid injurious marking of the latter by any pressure or friction upon its pile surface at or near the edge of the spear *b*, and for the same reason I prefer also to provide a special spear for the upper fabric *d* at the opposite or setting-in extremity of the cutting-frame, (not shown in the drawings,) which last-named spear may be formed with or without the sharp edge, as desired. In like manner where more than two pieces are stretched in one frame each piece may be provided with a separate spear or spears. The tightening-rollers *f g* may be of the ordinary or any other convenient character and are mounted in such manner as to enable the cloths *d e* to pass freely thereto over their respective spears.

Any form of pile-cutting knife may be employed, as such do not in any way form part of this my present invention, which is solely concerned with the holding or stretching of overlapping pieces of cloth in position for the purpose of cutting the pile thereof.

Variations in detail may be made—such as in the material, dimensions, and design of the extra or special spears and in the method of mounting the same—without departing from the peculiar character of the invention.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In apparatus of the character described, wherein two or more fabrics are stretched at one time, overlapping one another, the combination with the frame of two spears, ar-



ranged crosswise of the same and parallel with one another, substantially as and for the purposes hereinbefore set forth.

2. In apparatus of the character herein described, the combination with the frame of two spears, arranged at a suitable distance apart crosswise the frame and at suitable

height therein, substantially as and for the purposes hereinbefore described.

GEORGE ROGER.

Witnesses:

WILLIAM GADD,

GEORGE FREDERICK GADD.