

2 Sheets—Sheet 1.

APPARATUS FOR CUTTING THE PILE OF WEFT PILE FABRICS.

Patented Jan. 18, 1898.



Witnesses:
George Frederick Gadd.
Arthur Gadd.



Inventor :
George Roger
Per William Gadd. Attorney.

(No Model.)

2 Sheets—Sheet 2.

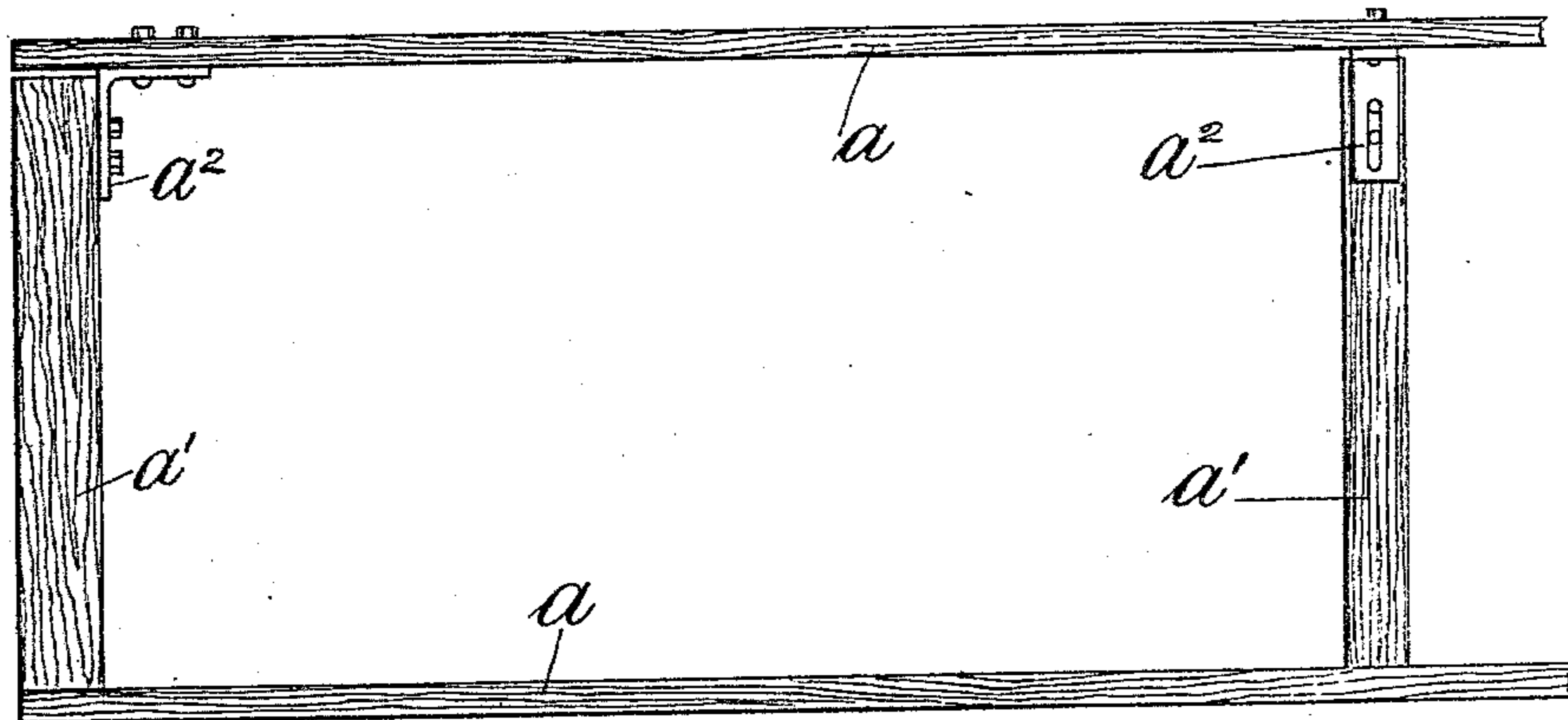
G. ROGER.

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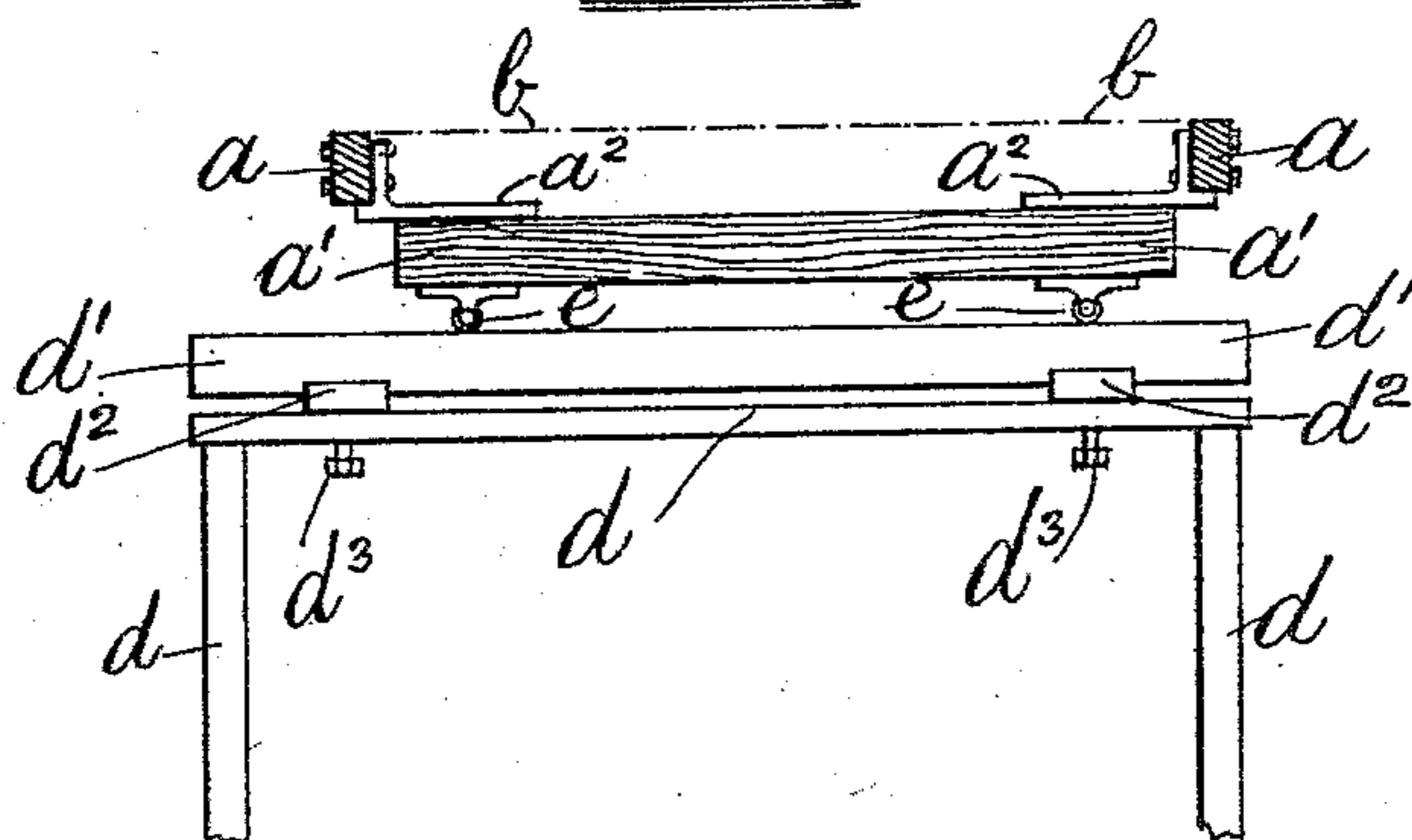
No. 597,620.

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— FIG. 3. —



— FIG. 4. —



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UNITED STATES PATENT OFFICE.

GEORGE ROGER, OF WARRINGTON, ENGLAND.

APPARATUS FOR CUTTING THE PILE OF WEFT PILE FABRICS.

SPECIFICATION forming part of Letters Patent No. 597,620, dated January 18, 1898.

Application filed July 12, 1897. Serial No. 644,247. (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 used in Cutting the Pile of Weft Pile Fabrics, of which the following is a specification.

The improvements relate to apparatus used in cutting the pile of weft pile fabrics, and have for their object to obtain increased efficiency in such cutting.

In the cutting of weft pile fabrics, as on the hand or stationary frame, as at present for the most part employed, it is common to stretch upon such frame a length of canvas or other fabric to form a support for the cloth requiring to be cut. This supporting fabric, however, tends in course of time to become depressed and slack of surface at the edges, owing to the frequent necessity the operative is under to bend and reach over the cloth at varying parts along the sides thereof in order to examine the same, in consequence whereof of the pile fabric, following the depressions of the supporting material to a considerable extent, presents difficulties to the operative at those portions where the line of cut has been thrown out of the horizontal and is liable to cause the pile to be cut out of center, or as what is known by the terms "toart" and "frote." To remedy this evil and to carry out my improvements, I provide apparatus which I will describe with reference to the accompanying drawings, in which—

Figure 1 is a longitudinal section, and Fig. 2 a plan view with portions removed, of a cutting-frame provided and arranged according to my improvements, while Figs. 3 and 4 show portions of certain details of special apparatus hereinafter to be described.

The same letters indicate corresponding parts wherever they occur.

In order to form a more efficient support for the pile fabric undergoing operation, I provide a framework or stretcher *a a'*, of any suitable material, but preferably of wood and light in construction, upon which I cause to be stretched the supporting material *b*. This stretcher is, by preference, adjustable in width and it may be as shown by the slotted brackets *a²*, connecting the side pieces *a* with the

cross-pieces *a'* of such stretcher, whereby the supporting material *b* may be kept tight.

In Fig. 3 the stretcher *a a'* is shown laterally adjustable at one side only. The ends of this stretcher-frame *a a'* are caused to rest upon suitable supports *c'* of the cutting-frame *c*, while a number of intermediate supports *d* may be provided along the length of the stretcher, as desired, which intermediate supports may be provided or not with vertical adjustment in order to further insure contact of the supporting-cloth with the pile fabric at any point requisite. One form of vertical adjustment is shown in Figs. 1 and 4, wherein the cross-rail *d'* is carried in chairs *d²*, which may be lifted from the trestle *d* by the screws *d³*.

The stretcher or frame *a a'* is shown in the drawings provided with antifriction-rollers *e* in order that in cases where the stretcher is formed of less width than the fabric under operation, as in Fig. 2, where two overlapping fabrics *f g* are operated upon one cutting-frame, such stretcher may be the more readily drawn (whether automatically or by hand) to either side of the apparatus; but these antifriction devices may be dispensed with if not required. By means of this stretcher or frame *a a'*, together with the supporting material *b* stretched thereon, the pile fabric lying over the same is supported horizontally and firmly at every part, whereby increased efficiency and uniformity in cutting may be obtained; also, the rigidity of the stretcher-frame effectually prevents the bearing down of the sides of the fabric or supporting-cloth by the operative, as before described.

Variations in detail may be made—such as in the material, design, and construction of the stretcher—and the improvements are applicable to cutting either on the long or the short run, whether by hand or mechanical devices, 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. The combination in a machine for cutting the pile of weft pile fabrics, of a frame for stretching the cloth to be operated upon, and an auxiliary frame covered with canvas

or like material, supported at its ends upon the first-mentioned frame, substantially as and for the purposes hereinbefore set forth.

2. The combination in a machine for cutting the pile of weft pile fabrics, of a frame for stretching the cloth to be operated upon, and an auxiliary frame covered with suitable material, as canvas, movably supported at

its ends upon the first-mentioned frame, substantially as and for the purposes hereinbefore set forth.

GEORGE ROGER.

Witnesses:

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GEORGE FREDERICK GADD.