

No. 872,507.

PATENTED DEC. 3, 1907.

T. GREENWOOD.
LOOM FOR THE MANUFACTURE OF TUFTED OR PILE FABRICS.

APPLICATION FILED MAR. 20, 1907.

2 SHEETS—SHEET 1.

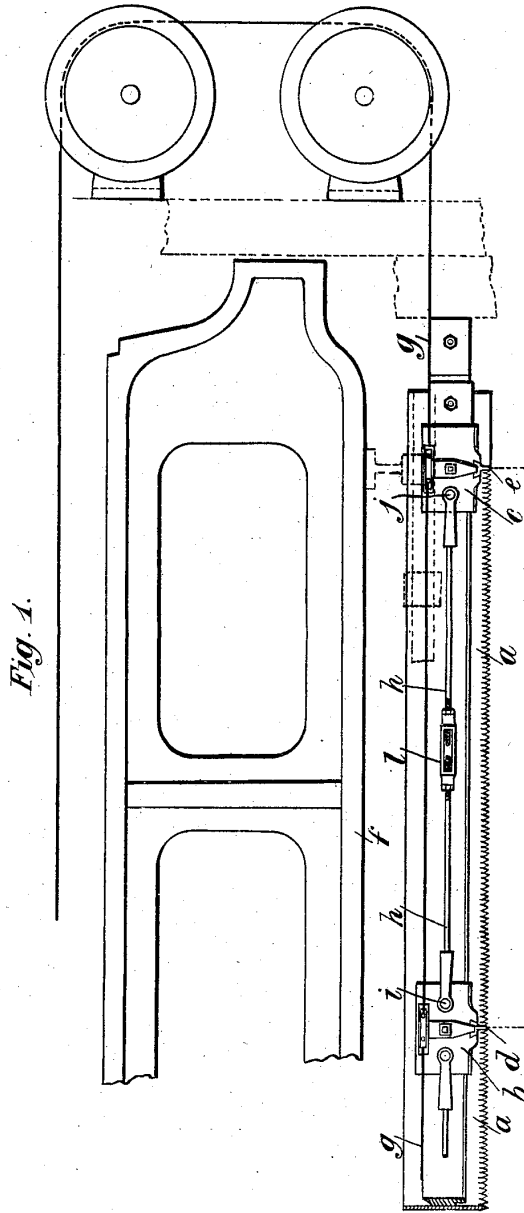


Fig. 1.

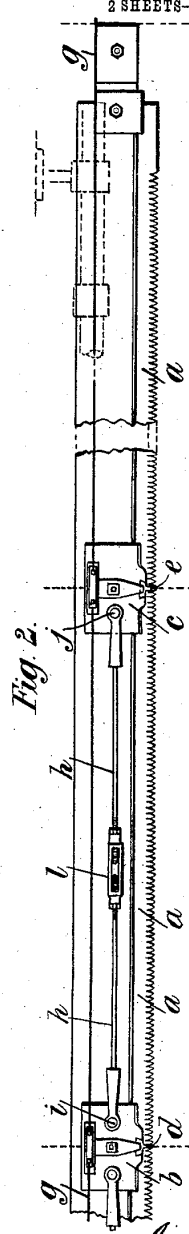


Fig. 2.

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Fig. 3.

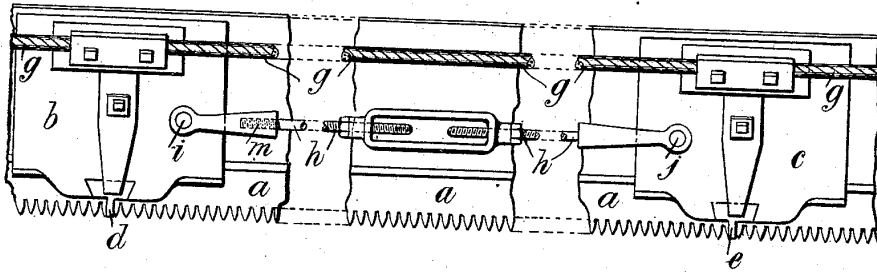
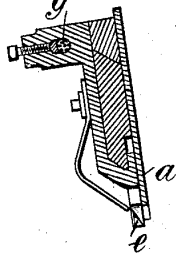


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS GREENWOOD, OF WOLVERLEY, NEAR KIDDERMINSTER, ENGLAND.

LOOM FOR THE MANUFACTURE OF TUFTED OR PILE FABRICS.

No. 872,507.

Specification of Letters Patent.

Patented Dec. 3, 1907.

Application filed March 20, 1907. Serial No. 363,340.

To all whom it may concern:

Be it known that I, THOMAS GREENWOOD, subject of His Majesty the King of Great Britain and Ireland, and residing at The Shrubbery, Wolverley, near Kidderminster, in the county of Worcester, England, mechanic, have invented new and useful improvements in Looms for the Manufacture of Tufted or Pile Fabrics, of which the following is a specification.

This invention has reference to looms for the manufacture of tufted or pile fabrics and more particularly of carpets or fabrics of the kind known as Royal Axminster or moquette.

A loom of the kind to which this invention relates is described in the specification of British Letters Patent No. 15680 of 1890 and various improvements in the same loom are described in the subsequent British Specifications Nos. 11268 of 1891, 24086 of 1892, 11397 of 1894 and 1095 of 1900.

In a loom of the kind above referred to the pile of the carpet or fabric is formed of tufts which are severed from the pile yarns in the yarn carriers and are brought forward by grippers which lay the tufts against the fell of the carpet where the tufts are bound into the carpet by the weft when the latter is beaten up by the slay. When a loom of this kind is made extra wide so as to enable it to weave much wider carpets and fabrics than is possible with a loom constructed as described in the specifications above referred to, there have to be employed for cutting the tuft yarns, several sliding knives each of which runs for only part of the length of the long knife or cutter which extends across the whole width of the set of yarns, and the sliding knife boxes which carry these sliding knives are connected together and to the wire rope which operates them.

My invention consists of the herein described improvements to enable these sliding knife boxes to be accurately adjusted to the proper distance apart so that the sliding knives carried thereby will at the termination of their movements properly register with the cutter teeth of the long knife comb or cutter.

My invention is illustrated by the accompanying drawings on which

Figure 1 is a front elevation of the sliding knife and fixed knife comb and accessories

with my invention applied thereto; Fig. 2 is also a front elevation of the same showing the two sliding knives as Fig. 1 but at the other end of their travel; Fig. 3 is a front elevation of two sliding knives and accessories and the fixed knife drawn on a larger scale and Fig. 4 is a cross sectional elevation of the same.

The same reference letters indicate the same parts in all the figures.

The long knife comb or cutter is marked *a* and two of the sliding knife boxes which are shown are respectively marked *b* and *c*. The sliding knife which is carried by the knife box *b* is marked *d* and the sliding knife which is carried by the knife box *c* is marked *e*. A portion of the top beam which carries the long knife *a* is also shown and marked *f*. The endless wire rope which operates the sliding knife boxes *b*, *c*, and to which the sliding knife boxes are fixed is marked *g*.

In carrying out my invention I provide between every two sliding knife boxes, such as the two sliding knife boxes *b* and *c*, an adjustable tie rod *h* the ends of which are respectively bolted to the knife boxes *b*, *c*, at *i*, *j*, and this tie rod is made adjustable in length as by a screw or screws so that the knife boxes *b*, *c*, and the sliding knives *d*, *e*, carried thereby, can be accurately adjusted and fixed at the proper distance apart as aforesaid so that the knives *d*, *e*, will properly register with the teeth *h* of the long knife comb or cutter *a* at the terminations of their travel. The screw adjustment of the tie rod *h* may be arranged in various ways as it may for instance take the form of a right and left hand screw connector *l* which connects the two parts of the tie rod *h* together, or the tie rod *h* may be made in one piece and at one end be screwed into a socket such as *m* (see Fig. 3) which can be adjusted on the tie rod *h* by first removing the connecting pin *i* which connects the socket *m* to the knife box *b*.

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

In a wide loom of the kind herein referred to for weaving tufted or pile fabrics, the combination in the tuft yarn cutting mechanism of a long cutter having a number of teeth or blades and extending across the whole width of the set of yarns and two or more sliding knife boxes each carrying a single cutter and

adapted to traverse along a portion of the
long cutter not traversed by the other cutter
and the rods connecting the knife boxes and
adjustable in length by screw threads where-
5 by the sliding cutters can be set to register
accurately with the teeth of the long cutter,
substantially as set forth.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

THOMAS GREENWOOD.

Witnesses:

JAMES AMPHERT MORTON,
ELLIS WILLIAM TALBOT.