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PATENTED AUG. 11, 1908

T. GREENWOOD.

LOOM FOR THE MANUFACTURE OF TUFTED OR PILE FABRICS.

APPLICATION FILED MAR. 20, 1907.

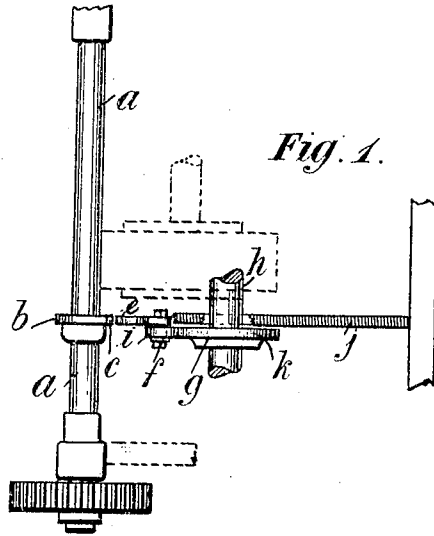


Fig. 1.

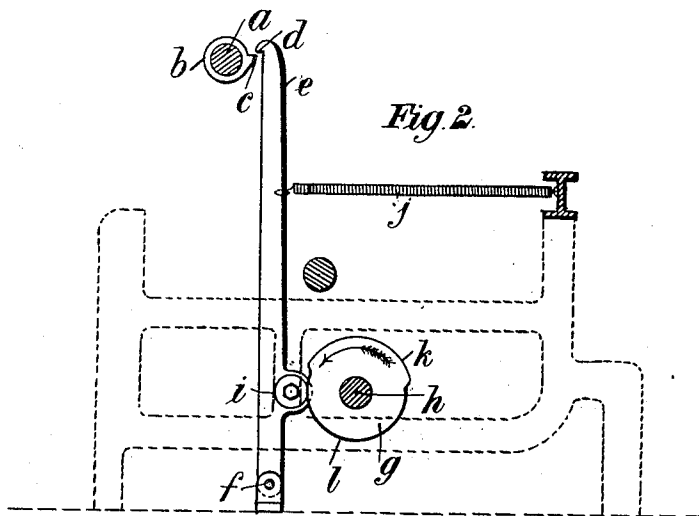


Fig. 2.

Witnesses.
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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. 895,630.

Specification of Letters Patent.

Patented Aug. 11, 1908.

Application filed March 20, 1907. Serial No. 363,342.

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 weave much wider carpets and fabrics than is possible with the loom constructed as described in the specifications above referred to, the grippers and their wing shaft and dividing shaft and bearings carried by the main gripper shaft are so heavy that if from any cause, such as the tufts not being properly separated from the yarns by the knives, the grippers are thereby stopped in mid-air, and even if the attendant on noticing this stops the loom with the grippers in this position, the usual brake on the loom is not sufficient to hold the main gripper shaft with the grippers in mid-air and prevent the main gripper shaft from being turned by the overhanging weight of the grippers and their wing shaft and dividing shaft and therefore the grippers may fall down and do much damage.

The object of my invention is to provide means for automatically holding the gripper shaft with the grippers in mid-air if from any cause as aforesaid they do not turn down at the proper time or are not properly held by the usual brake of the loom.

I will describe my invention by referring to the accompanying drawings on which

Figure 1 is a plan and Fig. 2 is a sectional end elevation of my invention these figures also showing portions of the loom frame and of the main gripper shaft above referred to.

I provide on the main gripper shaft *a*, a cam *b* made with a projecting tooth *c* which if the gripper should remain in mid-air for a moment too long takes under and is retained by the rabbeted end *d* of the catch piece *e* the lower end *f* of which turns about a pin fixed to the loom frame. This catch piece *e* is operated by the revolving cam *g* fixed on the bottom cam shaft *h* the said cam *g* acting against the roller *i* on the catch piece *e* which roller is kept in contact with the cam *g* by the spring *j*. The cam *g* is made with a high part *k* and a low part *l* arranged to move the catch piece *e* to and fro, and when the grippers are working properly the high part *k* of the cam *g* moves the catch piece *e* towards the gripper shaft *a* just too late for the tooth *c* to take under the rabbeted end *d* of the catch piece *e* but if from any cause the grippers should be held in mid-air for a moment too long then the tooth *c* will be caught by the rabbeted end *d* of the catch piece *e* which will thus hold the gripper shaft with the grippers up until the attendant has put the parts right.

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

1. In a loom of the class described the combination with the main gripper shaft, of a toothed cam mounted thereon, a catch lever and means for operating said lever so that it will engage the tooth on the cam when the grippers are held up longer than they ought.

2. In a loom of the class described, the combination with the main gripper shaft, of a toothed cam mounted thereon, a catch lever adapted to engage with the tooth on the cam when the grippers are held up and a cam for operating the catch lever.

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

THOMAS GREENWOOD.

Witnesses:

JAMES AMPBLETT MORSON,
ELLIS WILLIAM TALBOT.