

(No Model.)

H. A. MORROW.
CARPET RAG LOOPER.

No. 314,704.

Patented Mar. 31, 1885.

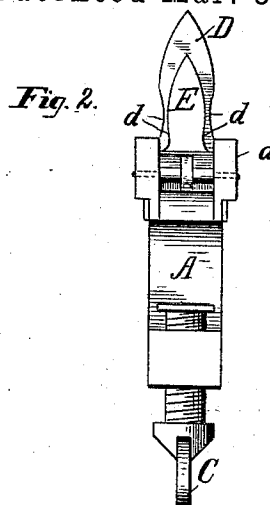
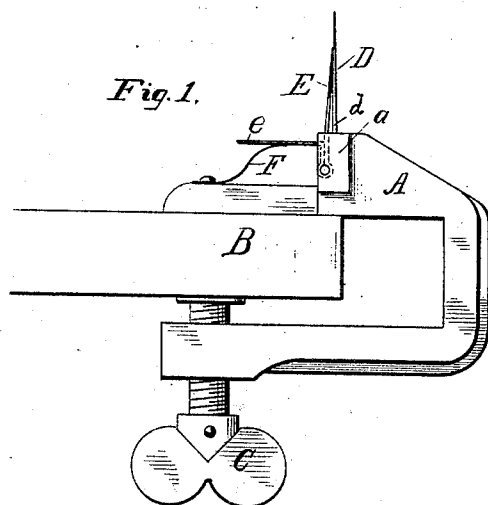


Fig. 3.

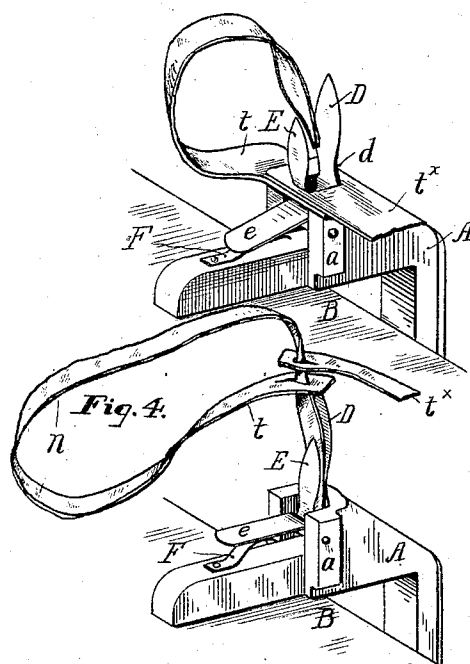
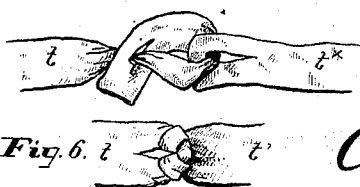


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY ALEXANDER MORROW, OF PHILADELPHIA, PENNSYLVANIA.

CARPET-RAG LOOPER.

SPECIFICATION forming part of Letters Patent No. 314,704, dated March 31, 1885.

Application filed January 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY ALEXANDER MORROW, a citizen of the United States, residing in the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Carpet-Rag Looper, of which the following is a specification.

The object of my invention is to provide a cheap and simple device by which the ends of the ribbons or strips of stuff which are subsequently woven or plaited into rag carpets or mats can be automatically united.

To the above end my invention consists in the apparatus hereinafter described and claimed.

In the drawings, which represent a preferred construction of a convenient embodiment of my invention, Figure 1 is a side elevation of the entire carpet-rag looper. (Shown applied to the edge of a table or similar support.)

Fig. 2 is an elevation of the said looper detached from the table. Figs. 3 and 4 are perspective detailed views showing the carpet-rag looper with its parts in two of the positions which they occupy during the forming of a knot between the adjacent ends of the tapes to be united. Figs. 5 and 6 are detailed views of the knot, the knot being shown in Fig. 5 before it is entirely tightened up, and in Fig. 6 after it is entirely tightened up.

Similar letters of reference indicate corresponding parts.

In the drawings, A is an angular frame, best made substantially of the form represented in the drawings, which is adapted to be secured in place upon the edge of a table, B, or other bed by means of a thumb-screw, C. This removable frame contains the operative instrumentalities of my device, which are a fixed slitter, D, and a pivoted spring-controlled slitter, E, which operates in connection with the fixed slitter. The fixed slitter is permanently erected in a socket, *a*, formed in that portion of the frame which is superimposed upon the supporting-table, and consists, at its upper extremity, of a spear-headed blade supported upon and formed as a part of a slightly-contracted blunt-sided throat or shank, *d*. The pivoted slitter is similar in shape to the fixed slitter and pivoted within the same socket, but is smaller and provided with a thumb-heel, *e*, or depressing-plate, through the instrumentality of which it can be deflected away

from the fixed slitter, against which, under the stress of a spring, *F*, secured to the frame and abutting beneath said thumb-heel, it normally rests at an incline, as represented in Fig. 1.

Such being a description of the devices composing my invention, its operation is as follows: In the normal position of parts the slitters occupy the position represented in Figs. 1 and 2—that is to say, the slitting-point of the pivoted slitter rests against the fixed slitter conveniently at some little distance below the extremity of said fixed slitter. In this position the ends of two tapes to be connected (designated in the drawings as *t t'*) are readily speared upon both of the slitters so as to rest upon the frame and surround the throat portions of said slitters. After this has been done and the two extremities are in the position above described, pressure is brought to bear upon the thumb-heel of the pivoted slitter so as to tilt the latter away from the fixed slitter and into the position represented in Fig. 3, and, as soon as this in turn has been done, the opposite or free extremity of the under tape is brought around and introduced between the slitters and down into the cavity formed between the slitters in the socket of the frame, and then the pressure upon the thumb-heel is released and the pivoted slitter allowed to re-assume its normal position against the fixed slitter, in doing which, however, the free or unslitted extremity of the under tape is firmly held between the slitters, and all that then remains to be done in order to effect the knotting of the two slitted extremities of the tapes is to seize said two slitted extremities which surround the slitters and lift them together off the slitters in the manner represented in Fig. 4. The above lifting off is attended with the knotting together of the under tape to form a slip-noose, (designated by the letter *n* in Fig. 4,) within the noose of which the slit extremity of the upper tape is by its slit engaged, as will be readily understood by a reference to Fig. 4 and to Fig. 5 of the drawings. Tension exerted upon the free extremities of the tapes causes the slip-noose to knot upon the slit extremity of the neighboring tape and form a tight fastening or knot of the character represented in Fig. 6.

It will be readily understood that my de-

vice is of great value to weavers of rag carpet and mats, in which the knotting of the tapes, ribbons, or strips of material employed requires considerable time and occasions the waste of a good deal of material.

The device is both cheap, simple, easy of operation, and not likely to get out of order.

It is obvious that the frame may be constructed as a stationary and not as a removable device, and that its form and mechanical construction may vary, that represented being simply what I deem a good form. It is also obvious that the slitters can be applied in various ways, and that their form may be varied, although that form in which both slitters have a contracted throat, about which the slitted extremities of the tapes cling before being lifted off, is the best construction of which I now have knowledge.

The slitters are best made flat with respect to their facing sides, and their knife-edges are produced by the beveling off of the metal of their outside faces.

The office of the spring (represented and designated by the letter F) is simply to yieldingly retain the pivoted slitter against the fixed slitter, and the spring must therefore be of sufficient strength to maintain the pivoted slitter against the fixed slitter with force

enough to retain against the friction of the lifted ends the free extremity of the under tape when the latter has been introduced between the slitters and through the slits formed in the extremities of the tapes for the time being surrounding the slitters.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a frame, a fixed slitter, and a pivoted slitter, substantially as and for the purposes described.

2. The combination of a retaining-frame, a fixed slitter, a pivoted slitter, and a spring for controlling the movement of the pivoted slitter, substantially as described.

3. The combination of the frame, the fixed slitter having a blunt-sided throat, the pivoted slitter likewise having a blunt-sided throat, and provided with a thumb-heel or kindred projection, by means of which it can be tilted, and the spring for controlling the position of said pivoted slitter, substantially as set forth.

In testimony whereof I have hereunto signed my name this 17th day of January, A. D. 1884.

HENRY ALEXANDER MORROW.

In presence of—

J. BONSALE TAYLOR,
ALEX. W. MORROW.