(No Model.) 2 Sheets—Sheet 1.

B. REFSÜM.

CARPET SEWING MACHINE.

No. 271,515. Patented Jan. 30, 1883.

Fig. 1

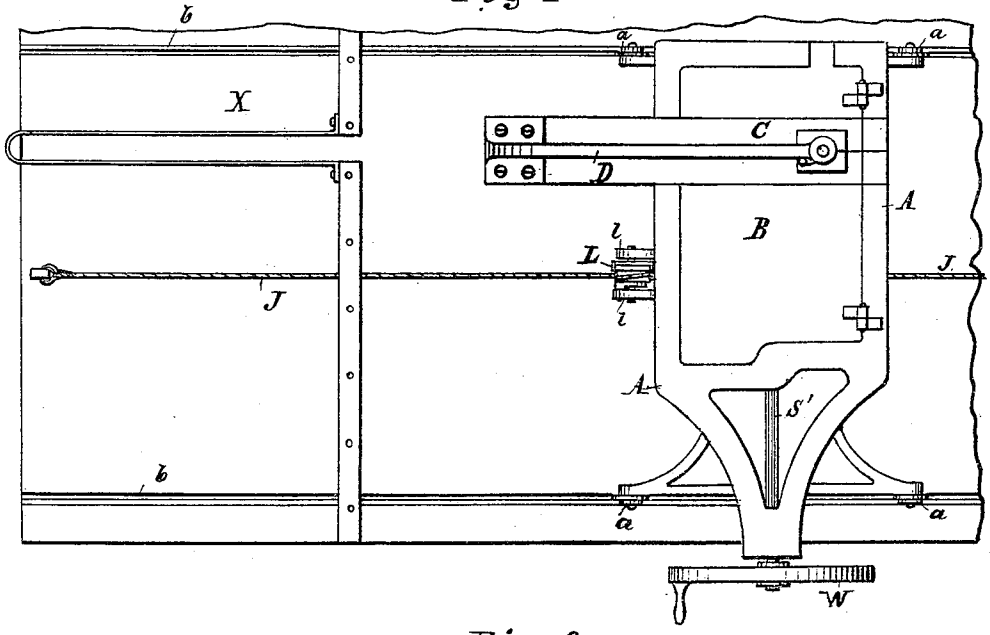


Fig. 2

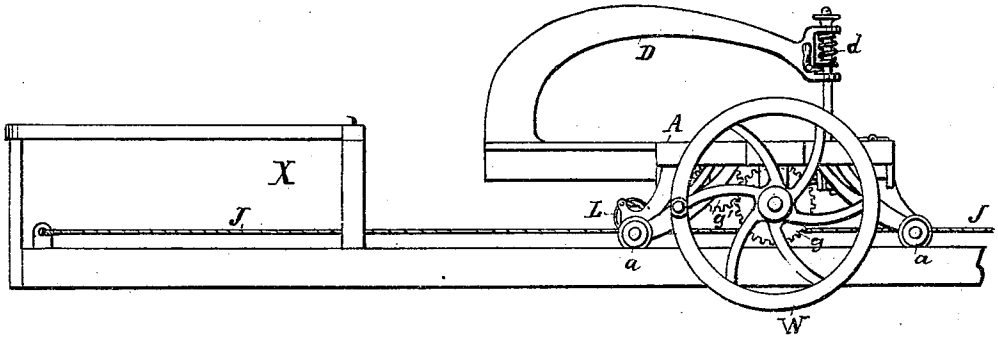
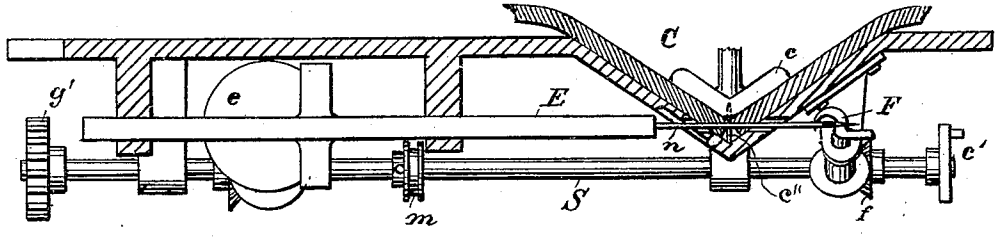


Fig. 3



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(No Model.) 2 Sheets—Sheet 2.

B. REFSÜM.

CARPET SEWING MACHINE.

No. 271,515. Patented Jan. 30, 1883.

Fig. 4

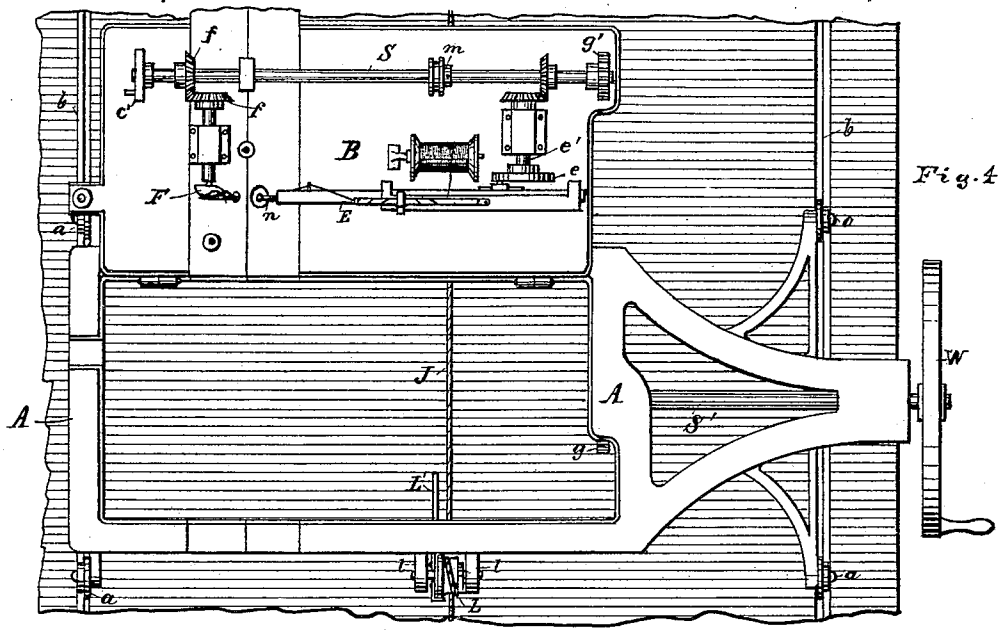


Fig. 5

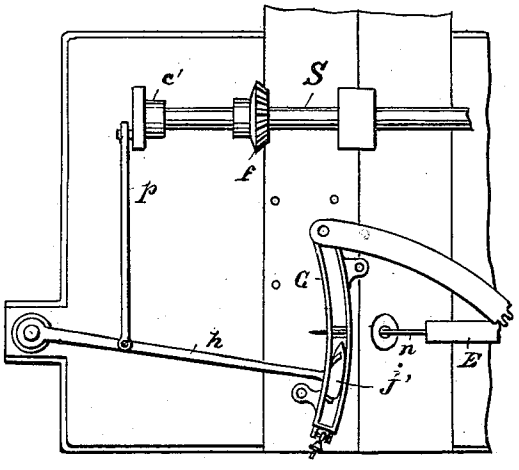


Fig. 8

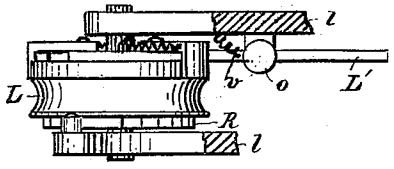


Fig. 9

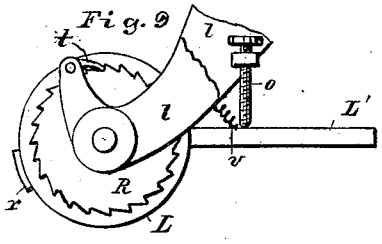


Fig. 6

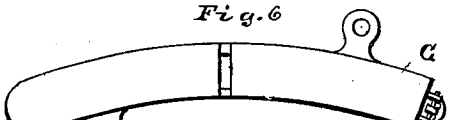
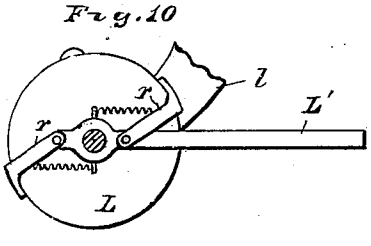


Fig. 7

Fig. 10



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UNITED STATES PATENT OFFICE.

BODVAR REFSUM, OF CHICAGO, ILLINOIS.

CARPET-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 271,515, dated January 30, 1883.

Application filed June 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, BODVAR REFSUM, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Carpet-Sewing Machines, of which the following is a specification.

My invention relates to improvements in carpet-sewing machines; and the object of my invention is to provide a machine whereby the seams of carpets may be neatly and expeditiously sewed in making up from the piece and in such a manner that the seams when finished will not be visible from the upper side, and will lie perfectly smooth when on the floor.

My invention consists in a frame having a V-shaped recess, in which the edges of the carpet to be sewed are placed, in combination with a presser-foot of corresponding form and a suitable feeding and stitch-forming mechanism, whereby the edges of the carpet are united at an angle, so that when finished the seams will lie flat on the floor, leaving the upper surface of the carpet smooth.

It further consists in combinations and arrangements of parts, as hereinafter set forth.

In the accompanying drawings, in which like parts are referred to by similar letters of reference, Figure 1 is a plan view of my improved machine; Fig. 2, a side elevation, and Fig. 3 a sectional elevation, of the same. Fig. 4 is a plan view of the same, with the hinged table shown open. Figs. 5 to 10 are detail views of some of the parts, and showing modifications in the construction.

In the said drawings, A A represent the frame of the machine, which is supported on rollers or wheels *a*, running on a suitable track, *b b*. This frame may be made of one piece or may be made, as shown, with a hinged table, B, provided with a V-shaped recess, C, running transversely therein, and in which the edges of the carpet to be sewed are made to meet at an angle, as shown in Fig. 3, the edges being held down by a presser-foot, *c*, attached to the lower end of a spring rod or arm, *d*, held in an arm, D, secured to the table B. A pile-deflector, *c''*, is arranged in the bottom of the recess C for the usual purpose.

E is the needle-bar, which reciprocates in bearings on the under side of the hinged table B and carries the needle *n*, which passes through the sides of the V-shaped recess C, and carries the thread through the edges of the carpet, as shown in Fig. 3.

F is a revolving hook or looper, which forms the stitches by looping the thread together in the ordinary manner as it is carried through the carpet by the needle *n*.

The needle-bar E receives its motion from a crank, *e*, on the end of a counter-shaft, *e'*, driven by bevel-gear from a shaft, S, which is journaled under the table B, and receives its motion from a hand-wheel, W, through a shaft, S', and spur-gear *g g'*. The rotating hook F also receives its motion from shaft S through beveled gearing *f f*.

If desired, a shuttle may be substituted for the hook F, and a double instead of a single thread used in the manner shown in Fig. 5, a shuttle-case, G, and shuttle *j* being attached to the under side of the table, as shown, and the shuttle moved therein by a vibrating arm, *h*, driven from a crank, *c'*, on the shaft S by connecting-rod *p*, said arm *h* moving in the same plane with the needle-bar E.

It is designed to have the pieces of carpet to be sewed together stretched on a suitable frame, X, on which the tracks *b* are placed, the frame A being moved along on the track *b b* in the manner described, as follows: A cable, J, is stretched along the frame X, passing under the frame A, and making one turn around a drum, L, journaled in bearings *l l* on the under side thereof. On one side of the drum L is pivoted a lever, L', provided with dogs *r*, which, as the outer end of the lever is moved in one direction, bind on the periphery of and rotate the drum L, but move freely thereon when moved in the opposite direction. On the opposite end of the drum is a ratchet, R, with which a pawl, *t*, on bearing *l* engages and prevents the drum from turning backward. The end of the lever L' rests against a cam, *m*, on the shaft S, which at each stroke of the needle-bar E strikes said lever and partially revolves the drum L, which winds up the cable J on one side, and at the same time paying it out on the other, and thus moves the frame A intermittently along on the track *b*. The lever L' is returned to its place by a spring, *v*, and the stroke thereof regulated by a set-screw, *o*, thus furnishing the means of making the stitches of any desired length. If

desired, the frame A may be made stationary and the carpet moved along. It will be understood that as the material is stretched upon the frame X the unstitched edges of the same will be passed around on each side of the rear end of the arm D, and then brought together in front of said arm, and placed in the V-shaped recess in the frame with the said edges in position to be sewed, as described. The carpet, being properly in place, is neatly and expeditiously sewed by turning the hand-wheel W.

Having thus described my invention, what I claim as new and original, and desire to secure by Letters Patent, is—

1. In a sewing-machine, the combination, with the frame A, having a V-shaped recess, C, in which the edges of the material to be sewed are placed, of the arm D, supporting a yielding presser-foot, *c*, having a form corresponding with that of the recess, substantially as described.

2. In a sewing-machine, the combination of the frame A, having recess C and presser-foot *c* arranged therein, the driving-shaft S, horizontal needle-bar E, counter-shaft *e'*, having crank *e* connected to the needle-bar, the looper F, and means for actuating the needle-bar and looper from the driving-shaft, substantially as described.

3. In a sewing-machine, the combination, with a movable frame and a stationary frame, of a drum, a cable wound thereon and connecting the fixed and movable frames, and means for rotating the drum, whereby an intermittent motion is imparted to the movable frame, substantially as described.

4. In a sewing-machine, the combination, with a V-shaped recess and a presser-foot having a corresponding form, of suitable stitching and feeding mechanism, whereby the edges of the material are united at an angle, so as to form a smooth seam, substantially as described.

5. The combination, with the frame A, of a drum, L, lever L', having dogs *r r* and suitable operating mechanism, and cable J, substantially as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

BODVAR REFSUM.

Witnesses:
CHAS. KRESSMANN,
FRANK JOHNSON.