J. ROBINSON & E. W. SILSBY.

PLAITING-MACHINE.

No. 181,480. Patented Aug. 22, 1876.

Fig 4.

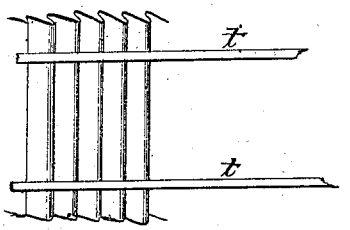


Fig 1

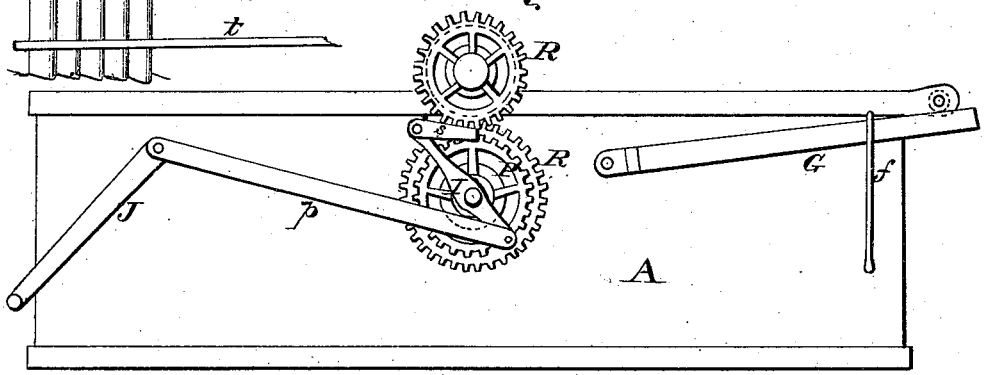


Fig 2

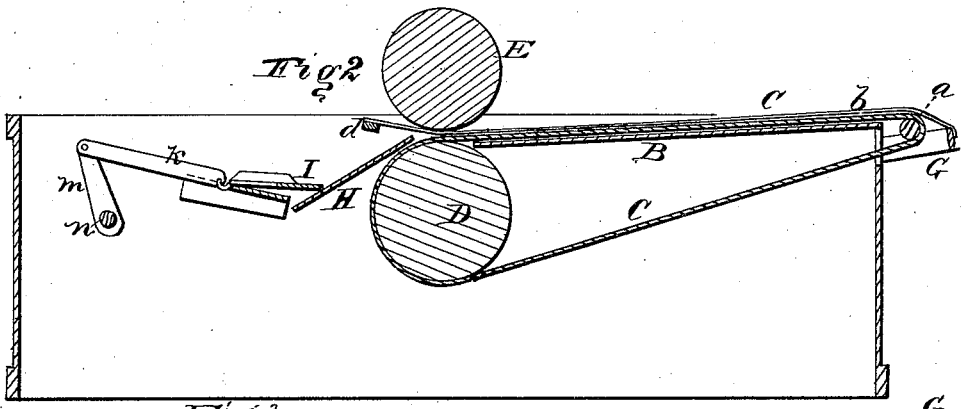
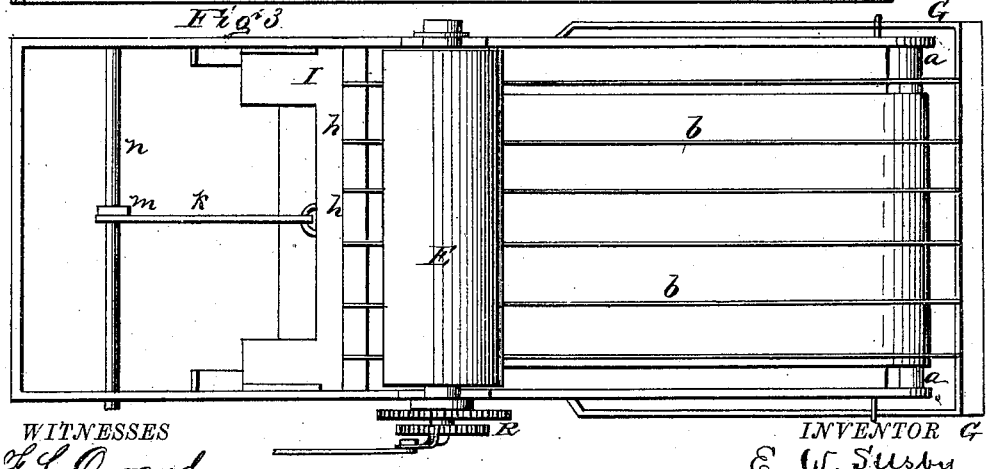


Fig 3



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN ROBINSON AND EUGENE W. SILSBY, OF OTTUMWA, IOWA; SAID ROBINSON ASSIGNOR TO SAID SILSBY.

IMPROVEMENT IN PLAITING-MACHINES.

Specification forming part of Letters Patent No. **181,480**, dated August 22, 1876; application filed May 10, 1876.

To all whom it may concern:

Be it known that we, E. W. SILSBY and JOHN ROBINSON, of Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Plaiting-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of our invention consists in the construction and arrangement of a plaiting-machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, Fig. 2 a longitudinal section, and Fig. 3 a plan view, of our invention. Fig. 4 shows the fabric.

A represents the box or frame of our machine, provided with the bed B, over which passes the endless apron C, said apron passing around a large roller, D, at the inner end of the bed, and around a small roller, *a*, at the outer end of said bed. Over the inner end of the bed B is a large pressure-roller, E, having its journal-bearings in suitable posts or standards attached to the box or frame A. Under this roller, on top of the apron C, is a series of wires, *b b*, the inner ends of which are attached to a cross-bar, *d*, in the frame, and the outer ends secured to a frame, G, which is hinged to the sides of the box, and held down by spring-catches *f f*. These wires *b* hold the cloth after it is plaited.

At the inner end of the bed is an inclined plate, H, projecting in between the rollers D and E, upon which plate the cloth is laid, and the plaits formed by the moving of the tucker-plate I. This plate is composed of one or more springs, *h*, at its inner or front edge, for the purpose of fitting uneven cloths. The plate I is, by a rod, *k*, connected with an arm, *m*, on a shaft, *n*, which has a handle, J, on its end, for operating the machine. This handle is, by a rod, *p*, connected with a lever, L, pivoted on the journal of the roller D, and carries a pawl, *s*, to engage in a toothed wheel, P, on said roller-journal. The two rollers D E are geared together by two cog-wheels, R R.

The handle J is moved back and forth, giving the plate I a reciprocating and the rollers and apron an intermittently rotary motion. As the tucker-plate I moves backward, the pawl *s* takes hold in the wheel P, and rotates the roller D, thereby feeding the cloth forward; and when the plate I moves forward the rollers and apron are stationary, the upper roller E holding the cloth, so that the springs *h* of the tucker-plate can take hold of the same and lay the plait. The rollers lay and press the plaits as they pass between said rollers.

Either one of these rollers may be heated by any suitable means, so as to press the plaits properly; and, to obviate the necessity of basting before sewing the plaited material on the dress, adhesive strips *t* may be passed in under the rollers on the goods, and be pressed down onto the same.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The endless apron C, in combination with the rollers D, E, and *a*, and the tucking-plate I, substantially as and for the purposes herein set forth.

2. The wires *b b*, or their equivalents, passing between the rollers D E, their inner ends attached to a stationary bar, and their outer ends to a pivoted frame, as herein set forth.

3. The combination of the endless apron C, rollers D *a*, pressure-roller E, wires *b*, inclined plate H, and the tucker-plate I, all constructed and arranged to operate substantially as and for the purposes herein set forth.

4. The adhesive strips *t*, in combination with a plaiting-machine, for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

EUGENE W. SILSBY.
JOHN ROBINSON.

Witnesses:
R. M. PIERCE,
JAMES SMITH.