J. LYALL.

TAKE-UPS FOR LOOMS.

No. 191,692. Patented June 5, 1877.

Fig. 1.

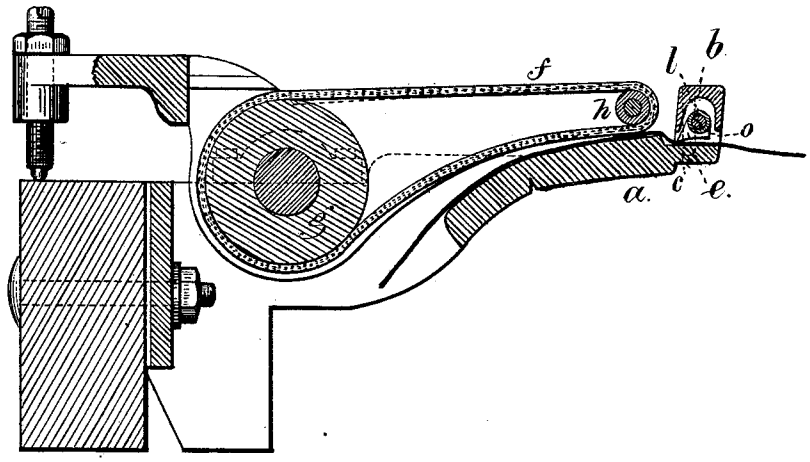
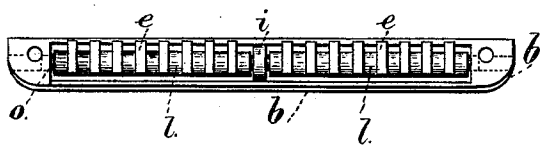


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES LYALL, OF NEW YORK, N. Y.

IMPROVEMENT IN TAKE-UPS FOR LOOMS.

Specification forming part of Letters Patent No. **191,692**, dated June 5, 1877; application filed February 25, 1876.

To all whom it may concern:

Be it known that I, JAMES LYALL, of the city and State of New York, have invented an Improvement in Take-Up for Looms, of which the following is a specification:

This invention relates to means for holding the fabric as woven, especially in cases where irregular fabrics, such as corsets, are woven.

I make use of a range of holding-pawls set in a bar that is near the fell of the cloth, and said bar is provided with a pivot-wire, upon which the pawls swing, and said pivot-wire is supported at intervals by transverse partitions in the said hollow bar.

In the drawing, Figure 1 is a cross-section of the take-up mechanism, and Fig. 2 is an inverted plan of the holding bar and pawls.

The breast-beam *a*, or a bearing-surface for the fabric, is adjacent to the fell of the goods, so that the holding device may secure the fabric near the point of weaving, and prevent the same receding with the lay.

Over the breast-beam *a*, and near the fell of the goods, is a bar, *b*, that is attached at its ends to the breast-beam by screws *c*, or similar means, and to this bar are pivoted numerous pawls, *e e*, which point toward the stationary surface over which the cloth is drawn by the take-up, so that the pawls hold the cloth as it is drawn between such pawls and the surface, to prevent it receding toward the lay as the latter moves back.

The device for drawing the fabric along beneath the pawls as it is woven may be of any suitable character. I have shown the elastic belt *f* passing over the rollers *g h* and pressing upon the fabric as it rests upon the surface *a*, as in Letters Patent No. 133,868, granted to me December 10, 1872, and No. 171,396, granted December 21, 1875.

The bar *b* is hollow or trough-shaped, and contains the transverse partitions *i*, through which the rod *o* passes. Said rod forms the pivot for the pawls *e e*, and these are kept apart by washers or short cylinders *l*. By this construction the pivot-rod *o* is supported at intervals, so that it can be comparatively small without bending under the pressure to which it is subjected, and the pawls and washers are threaded upon the pivot-rod, and that is passed endwise through the holes in the stationary bar *b*. The holes for the screws *c* pass across the holes for the pivot wire or rod *o*, so that the screws *c* prevent the said rod moving endwise after the parts are in place.

I claim as my invention—

1. The combination, with the take-up in a loom, of a range of holding-pawls attached to a pawl-bar, and acting to retain the cloth as taken up, substantially as set forth.

2. The hollow bar *b*, having transverse partitions, in combination with the pivot-rod *o*, pawls *e*, and washers *l*, substantially as set forth.

3. The combination, with the bar *b* and pivoted pawls *e*, of the take-up belt *f* and rollers *g h*, substantially as set forth.

4. A range of swinging holding pawls or points, standing away from the reed, and yielding to the fabric as it is drawn along, in combination with a take-up mechanism that draws along the slack cloth, substantially as specified.

Signed by me this 23d day of February, A. D. 1876.

JAMES LYALL.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.