## C. F. SPENCER.

LACING FOR CORSETS, GLOVES, &c.

No. 321,146.

Patented June 30, 1885.

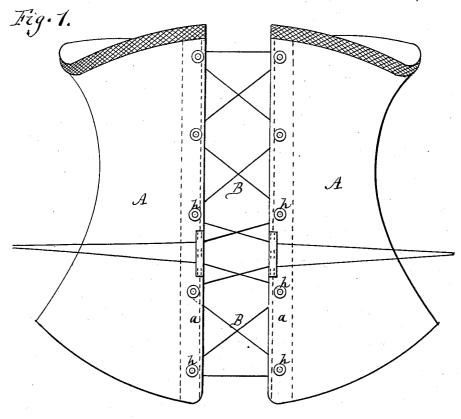
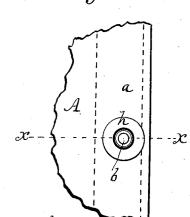
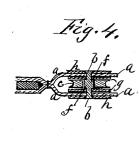


Fig. 2.



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Fig. 3.



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## UNITED STATES PATENT OFFICE.

CHARLES F. SPENCER, OF ROCHESTER, NEW YORK, ASSIGNOR TO ABRAM S. MANN AND ELBERT B. MANN, BOTH OF SAME PLACE.

## LACING FOR CORSETS, GLOVES, &c.

SPECIFICATION forming part of Letters Patent No. 321,146, dated June 30, 1825.

Application filed December 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. SPENCER, of the city of Rochester, in the county of Monroe and State of New York, have invented a 5 certain new and useful Improvement in Lacings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which-

Figure 1 is a rear elevation of a corset showing my improvement. Fig. 2 is an enlarged elevation of one of the cord-bearings attached to a fragment of the corset. Fig. 3 is an edge elevation of Fig. 2. Fig. 4 is a cross-section

15 of Fig. 2 in line x x.

My improvement relates to lacings for corsets, gloves, shoes, &c., but is more particularly applicable to corsets; and it is of that kind where lacing-cords extend from side to 20 side and pass around studs or bearings at the edges of the slit.

The invention in this case consists in the combination, with a double fly at the edge of the slit, of a bearing inserted between the sides of the fly, consisting of a roller, a washer on each side of the roller inside the fly, and a washer on the outside of each side of the fly, and a lacing-cord passing from side to side around the rollers, all as hereinafter described.

In the drawings, A A show the two sides of the corset to be laced. At each side of the center slit at the rear of the corset is a double fly consisting of two side flaps, aa, which join together at some little distance back, thus form-35 ing an inclosure at the edge, which, however, is open on the side next to the slit.

The bearings around which the lacing-cords pass are located between the sides of the fly as

b is a shaft or pin on which the grooved roller c turns freely. At the ends this shaft is cut down or reduced in diameter, forming shoulders f f, which come just outside the sides of

the roller.

g g are washers resting on the reduced ends of the shaft, but inside the flaps of the fly, and serving as the stops between which the roller runs and to keep it in place. washers can press inward no farther than the 50 shoulders ff. Therefore they hold the roller squarely between them, but allow it to run freely on the shaft.

h h are other washers on the reduced ends of the shaft, but located outside the flaps a a of the fly, and serving as clamps to fasten the 55 cloth between the two sets of washers and to clamp the inner washers against the shoulders f f of the shaft, thus securing all firmly in place, with the rollers located inside the fly. The ends of the shaft b are riveted down in 60 the outer face of the washers h h to secure the parts. The several bearings on opposite sides of the slit are located diametrically opposite each other, as shown.

B is the lacing cord, which is made in a sin- 65 gle length and doubled in the center. One half of this cord passes around the upper pulleys and the other half around the lower pulleys, and the loose ends meet in the center and pass out in opposite directions, as shown 70 in Fig. 1, and by drawing on the ends in opposite directions the lacing can be drawn up.

Among the advantages of this invention are the following: first, by the use of a double fly, or a fly having two flaps, the bearings are 75 inclosed and covered from sight and shielded from harm, and the cords run much easier and better, and there is much less tendency of the fabric to wrinkle as the sides are drawn up; second, by the construction of the bear- 80 ings as described they are specially adapted to the above-described form of the fly. This construction is such that the roller is confined between the flaps with guiding-washers to hold it in place, while outside washers fasten to the 85 cloth and hold all the parts firmly.

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

- 1. In a lacing, the combination, with a fly 90 having two sides or flaps, of a bearing consisting of a shaft, a roller on the shaft located inside the fly, two washers on the shaft on opposite sides of the roller, also located within the fly, and two washers on the shaft on the out- 95 side of the fly, serving to attach the bearing to the fly, and a lacing-cord passing from side to side around the rollers, substantially as set forth.
  - 2. In a lacing, the roller-bearing herein de- 100

scribed, consisting of the shaft b, provided with the shoulders f f, the roller c, resting and turning freely on the shaft, the washers g g, resting on the reduced ends of the shaft and forming guides for the roller, and the outside washers, h h, for attaching the bearing to the fly, and a lacing-cord passing from side to side around the rollers, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed 10 my name in the presence of two subscribing witnesses.

CHAS. F. SPENCER.

Witnesses:

Z. L. DAVIS, R. F. OSGOOD.