

(No Model.)

A. J. DE LOTBINIÈRE.
STIRRUP.

No. 475,127.

Patented May 17, 1892.

Fig. 1

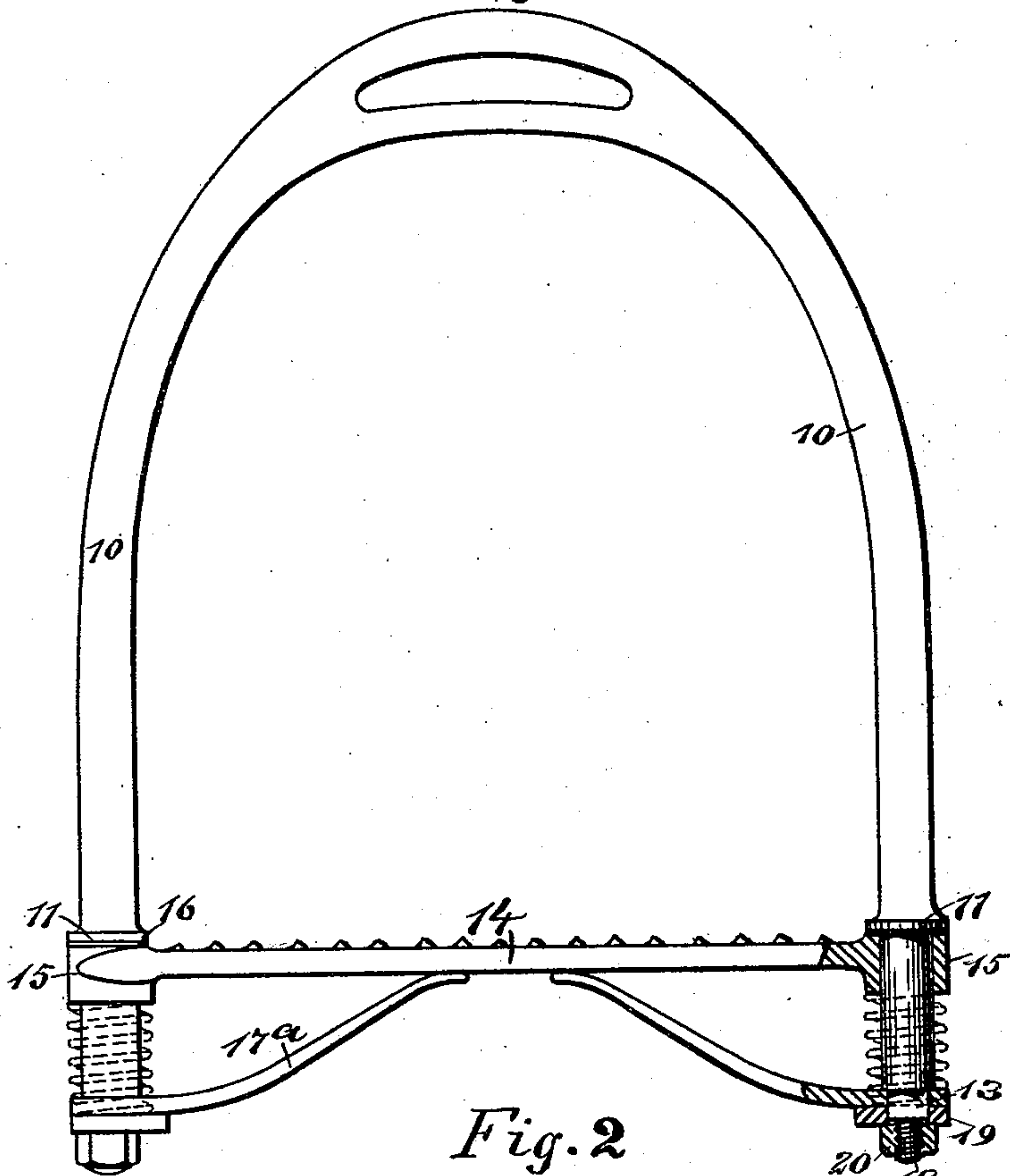


Fig. 2

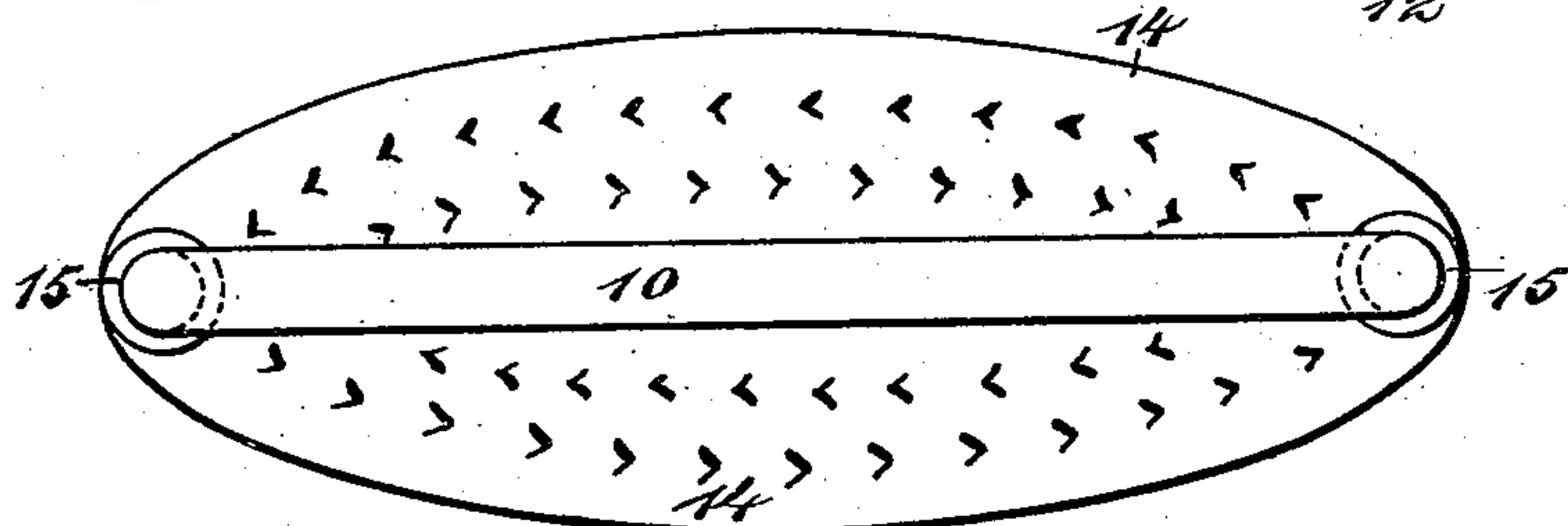


Fig. 3



WITNESSES:

J. A. Bergstrom
C. Sedgwick



INVENTOR

A. J. de Lotbinière
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALAIN JOLY DE LOTBINIÈRE, OF QUEBEC, CANADA.

STIRRUP.

SPECIFICATION forming part of Letters Patent No. 475,127, dated May 17, 1892.

Application filed December 26, 1891. Serial No. 416,261. (No model.)

To all whom it may concern:

Be it known that I, ALAIN JOLY DE LOTBINIÈRE, of Quebec, in the Province of Quebec and Dominion of Canada, at present residing in India, have invented a new and useful Improvement in Stirrups, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of stirrups having yielding foot-rests; and it consists in the novel construction and combination of the several parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a partial side elevation and partial sectional view of a stirrup constructed in accordance with my invention. Fig. 2 is a plan view of the stirrup, and Fig. 3 represents, respectively, a side elevation and plan view of a spring employed in connection with the foot-rest of the stirrup.

The members of the bow section 10 of the stirrup are made longer than usual, and some distance from their lower extremities are provided with shoulders 11. Above the shoulders the members of the yoke of the stirrup may be of any desired shape in cross-section. Below the collars 11, however, the members of the yoke are round in cross-section, as is best shown at the right in Fig. 1. Each member terminates in a reduced threaded section 12, and above the threaded section each member of the yoke is provided with a square or polygonal section 13.

The foot-rest 14 has formed at each end a sleeve 15, and the sleeves are adapted to slide upon the surfaces of the bow-section of the stirrup below the collars 11—that is, upon the cylindrical sections—as is best shown in Fig. 1. Between each collar 11 and the upper surface of each sleeve of the foot-rest 14 a washer 16 is located, preferably of leather. The foot-rest is held normally in engagement with the collars 11 through the medium of a single spring 17, as shown in Fig. 3, two springs 17^a, as illustrated in Fig. 1, or two spiral springs, as shown in dotted lines in Fig. 1. When a single spring is employed, it is of what is known as the "bow pattern," and has formed at each extremity a rectangular or

polygonal opening 18, and these openings 18 in the spring are adapted to receive the square or polygonal surfaces 13 of the bow section or frame of the stirrup, and the central portion of the spring has a bearing against the under central face of the foot-rest. When two springs 17^a are employed, their outer ends are provided with the apertures or openings 18 in like manner to the single spring, and the springs are held in a fixed position through the medium of the washers 19 and lock-nuts 20, the latter being screwed upon the threaded extremities of the bow section or frame, as shown in Fig. 1. By making the apertures 18 rectangular or polygonal and the surfaces 13, receiving said apertures, of like formation the springs are preserved against lateral motion.

Among the results obtained by the use of a stirrup constructed as described might be mentioned the following: A rider will at all times throw a portion of his weight on the stirrups at every movement of the horse. Instead of this weight being transmitted directly to the back of the horse through the stirrup-leathers it is taken up gradually by the foot-rest, as the latter must first be compressed and in turn compresses the springs to a greater or less extent, and by this means the shock is transmitted to the back of the horse in an exceedingly mild form. The stirrup also insures an easy seat for the rider, and no effort is required of rising in the stirrup when the horse is trotted, even though the animal trots very hard, as the foot-rest by sinking on the springs is the equivalent of the rider rising from the saddle. The stirrup also acts as a safety-stirrup, as the rider's feet in the event he is thrown cannot become jammed in the stirrups, as the downward pull in the event the rider is dragged along the ground causes the foot-rest to sink, and so release the foot from the stirrup.

Another important feature of the invention is that the rider will at all times feel the stirrups, and thus the danger of losing them is materially lessened.

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

1. In a stirrup, the combination, with the bow section having the lower ends of its mem-

bers rounded and provided with collars at the upper ends of the rounded portions, of a foot-rest provided with sleeves at its ends fitting loosely upon the rounded portions of the bow section, and a spring having its end secured to the lower ends of the said rounded portions and bearing against the under side of the middle portion of the foot-rest, substantially as described.

10 2. The combination, with the bow section of a stirrup, provided with collars 11 and rounded portions below the collars, said rounded portions having the reduced threaded section 12 and the square or polygonal

section 13, of the foot-rest 14, provided with the sleeves 15, fitting loosely on the said rounded portions, the spring 17, having rectangular or polygonal openings 18, fitting on the sections 13, and the nuts 20 on the reduced ends 12, substantially as herein shown and described.

November 12, 1891.

ALAIN JOLY DE LOTBINIÈRE.

Witnesses:

W. EVANS GORDON,

GEO. APPLEBY,

Imperial Postmaster.