

(No Model.)

2 Sheets—Sheet 1.

J. REID.
WIRE STRETCHER.

No. 339,319.

Patented Apr. 6, 1886.

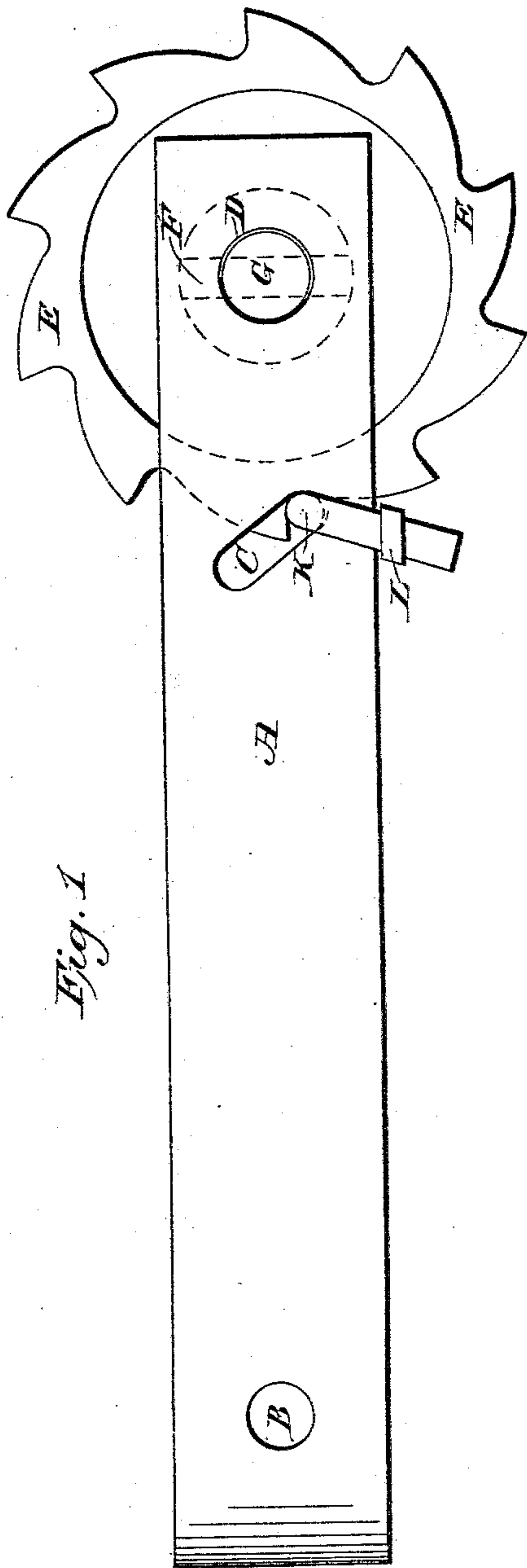


Fig. 1

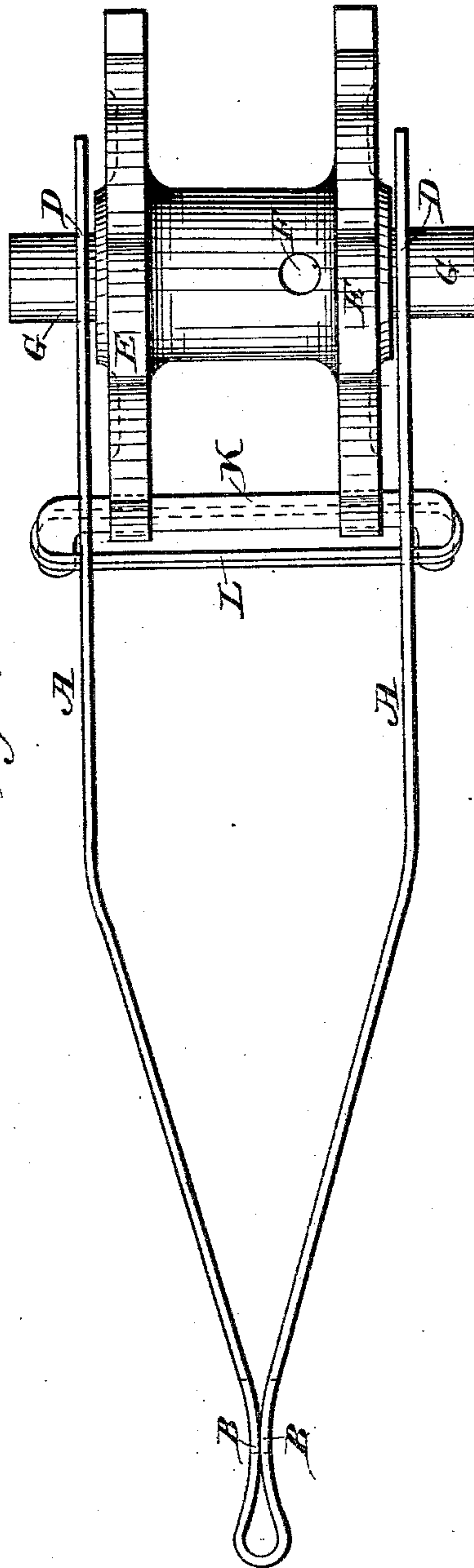


Fig. 2

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(No Model.)

2 Sheets—Sheet 2.

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WIRE STRETCHER.

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Fig. 5.

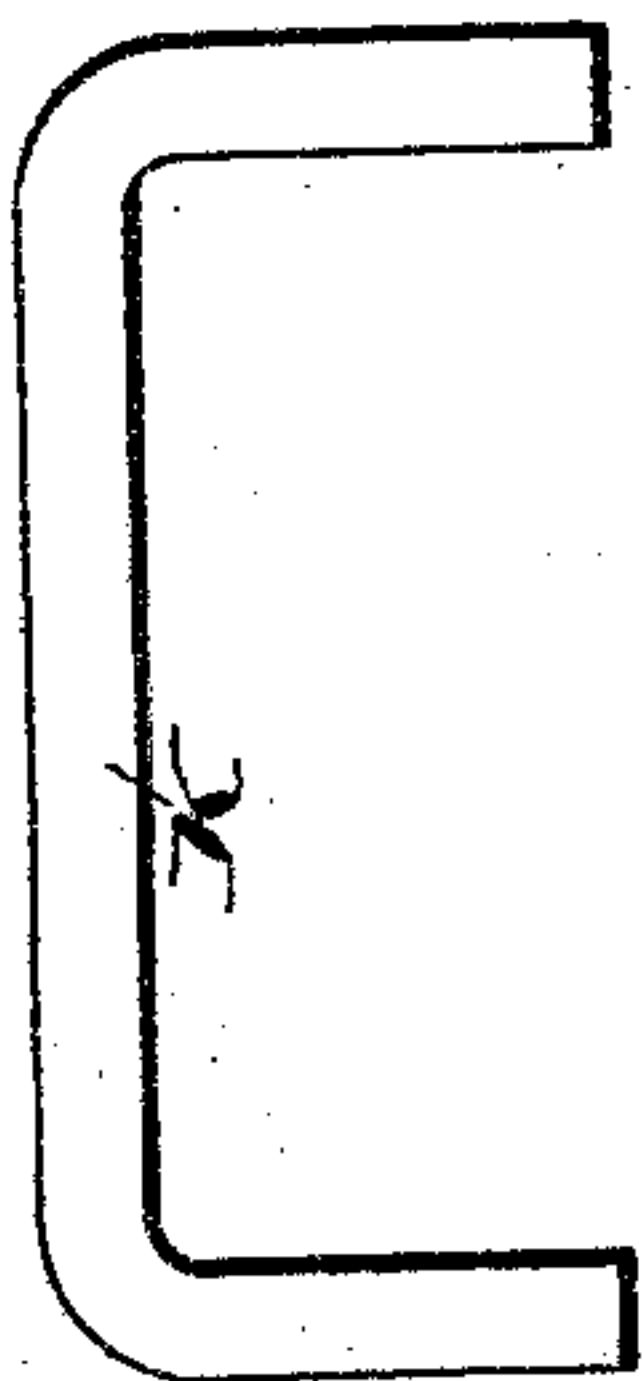


Fig. 3.

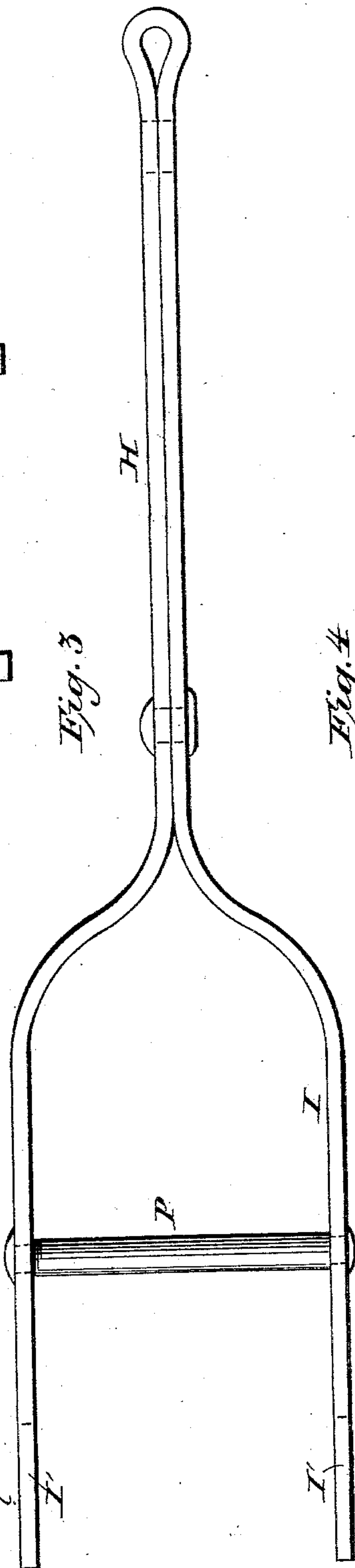
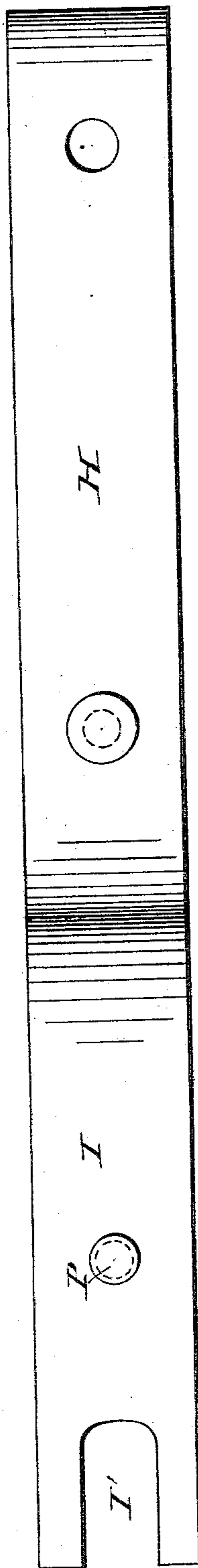


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN REID, OF DUNEDIN, OTAGO, NEW ZEALAND.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 339,319, dated April 6, 1886.

Application filed September 17, 1885. Serial No. 177,383. (No model.) Patented in New Zealand January 24, 1885, No. 1,366; in Victoria July 15, 1885, No. 4,140; in South Australia July 29, 1885, No. 583; in New South Wales August 4, 1885; in Tasmania August 22, 1885, No. 366; in England August 31, 1885, No. 10,286, and in Queensland October 5, 1885, No. 28.

To all whom it may concern:

Be it known that I, JOHN REID, a subject of the Queen of Great Britain, residing at Dunedin, Provincial District of Otago, in the British Colony of New Zealand, have invented a certain new and useful Improvement in Wire-Stretchers, (for which Letters Patent have been granted in Victoria, No. 4,140, dated July 15, 1885; in New Zealand, No. 1,366, dated January 24, 1885; in Tasmania, No. 366, dated August 22, 1885; in New South Wales, dated August 4, 1885; in South Australia, No. 583, dated July 29, 1885, and in Queensland, No. 28, dated October 5, 1885,) of which the following is a full, clear, and exact description.

This invention has been designed for the purpose of producing a cheap, simple, and effective machine or device for stretching the wires of wire fences; and it consists in the combination and co-operation of parts, substantially as hereinafter fully described, and as set forth in the claims.

In the accompanying drawings, Figure 1 is a side elevation, and Fig. 2 a plan view, of the improved wire-strainer, the operating-lever being removed. Fig. 3 is a plan view, and Fig. 4 a side elevation, of the operating-lever; and Fig. 5 is an elevation of the locking device K, shown also in Figs. 1 and 2.

A is the framing, made preferably of hoop-iron bent upon itself, as shown in Fig. 2. B B are holes through it, to which one end of the wire is permanently secured. D D are larger holes at its other end to receive the axes G of the windlass, which has ratchet-toothed flanges E.

F is a hole passing quite through the drum of the windlass, through which the other end of the wire to be strained is passed.

H is the lever, having a bifurcated end, I, the cheeks of which are provided with the open-ended slots I'.

P is a fixed transverse pin, and K is a loose transverse pin, which latter works up and down the oblique slots C, formed opposite each other in the sides of the frame. The pin K has turned-down ends, as shown, which serve the double purpose of preserving the pin in

its place and preventing the expansion of the frame.

L is a band of india-rubber or other elastic material, which is only desirable when the lever is working in a horizontal plane, as it then brings the pin sharply back to its retaining position after the ratchet-teeth have passed under it.

The mode of operation is as follows: Supposing the wires of the fence to be secured at their further ends to the straining-posts, then at a convenient point between them I make or select a break. One of the ends formed by such break I pass through the hole F of the windlass and wind up a turn or two, using the framing A and the pin K as a ratchet-handle. The other end I pass through the holes B of the frame A, and permanently secure it there. I then place the straining-lever in position on the axes of the windlass and move it to and fro, when the pin P will engage with the ratchet-teeth and so revolve the windlass and wind up the wire, the transverse retaining-pin K meanwhile being worked up its slots by each of the ratchet-teeth and falling back again to its normal position as each tooth passes over it, the elastic band L assisting to bring it back again to its normal position. By this means the strain is retained upon the wire, as said pin prevents the windlass returning when released by the lever.

It will be noticed that the device shown by Figs. 1 and 2 of my machine—that is to say, the framing with its attached windlass and ratchets—remains permanently affixed to the wire, so that by the application of my lever the strain can be increased or decreased at will.

I am aware of United States Patent No. 175,944, granted to W. F. Daniels under date of April 11, 1876; but the construction of device therein shown and described is not sought to be claimed in this application. Said patent does not show a wire-stretcher in which a roller is employed provided with toothed end flanges, with the teeth of which engages the yielding locking device herein described for preventing backward rotation of said roller during the operation of winding. Neither is

the roller shown in said patent constructed to be rotated like the roller described hereinbefore. The roller shown in said patent is provided with a squared boss, to which a crank
5 is applied for rotating said roller, while my roller, being provided with toothed end flanges, is rotated by means of a lever constructed to engage with the teeth of said flanges.

What I claim is—

10 1. The herein-described wire-strainer, consisting of a supporting-frame provided in its side bars with oblique slots, and a spool or windlass having ratchet-flanges E at opposite
15 ends journaled in said side bars of the frame, in combination with a locking-pin having its bearings in said slots C, and adapted to engage the teeth of the ratchet-flanges, substantially as and for the purpose specified.

20 2. The herein-described wire-strainer, consisting of a supporting-frame provided in its side bars with oblique slots, and a spool or

windlass having ratchet-flanges E at opposite ends journaled in said side bars of the frame, in combination with a locking-pin, K, passing through the oblique slots C, and having its
25 ends bent at right angles, substantially as and for the purpose specified.

3. The herein-described wire-strainer, consisting of the forked frame A, having holes B at one end, and oblique slots C near its opposite end, and a spool or windlass having a hole, F, and ratchet-flanges at opposite sides journaled in the forked end of the frame in proximity to the slots C, in combination with the
30 locking-pin K, having its bearings in slots C, and adapted to engage the teeth of the ratchets F, and an elastic device to return said pin into its normal position when displaced, as set forth.
35 JOHN REID.

Witnesses:

WALTER SMYTHE BAYSTON,
PERCIVAL AUGUSTUS SMITH.