(No Model.)

A. J. FORSYTHE & G. L. GWINN.

TENSION DEVICE FOR FENCE MACHINES.

No. 411,122. Patented Sept. 17, 1889.

Fig. 1.

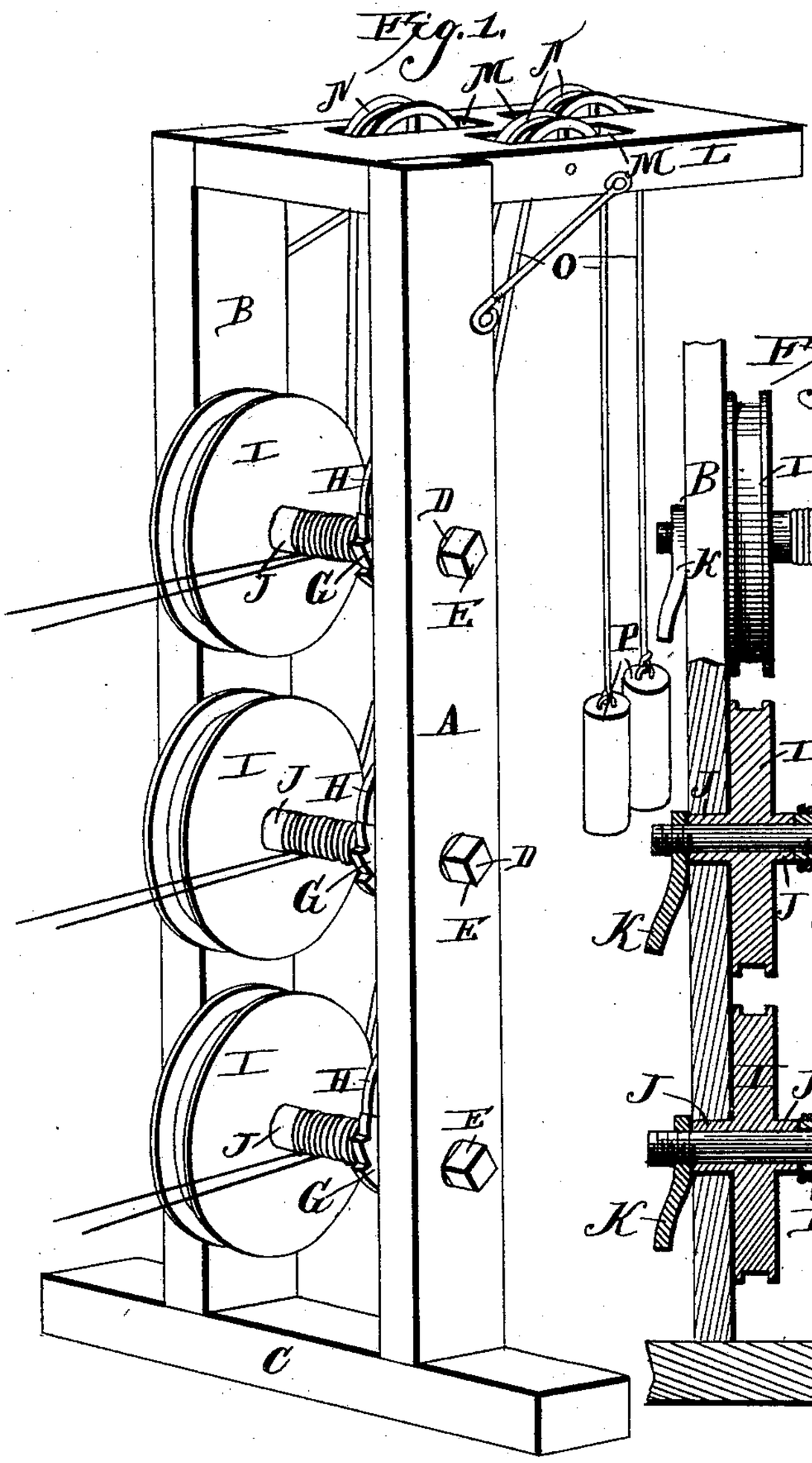

Fig. 2.

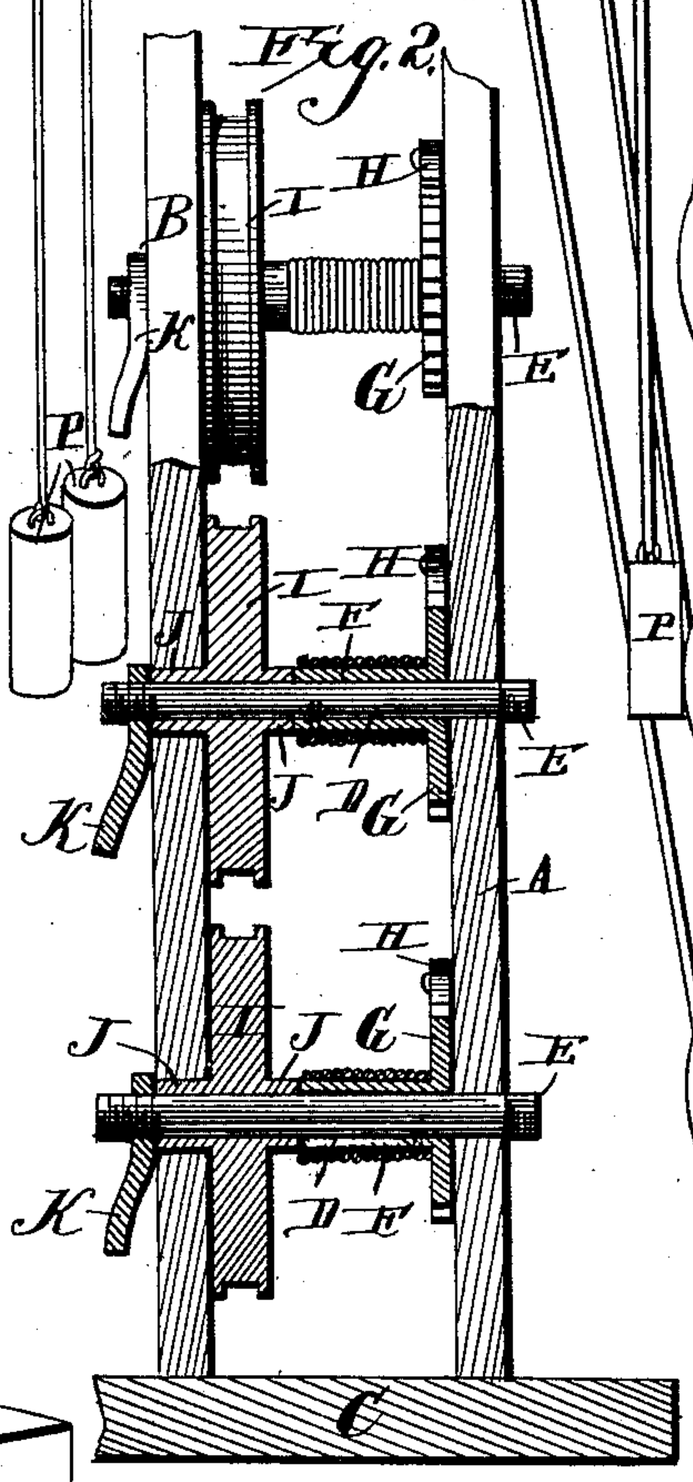

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

ANDREW J. FORSYTHE AND GEORGE L. GWINN, OF KOKOMO, INDIANA.

TENSION DEVICE FOR FENCE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 411,122, dated September 17, 1889.

Application filed April 25, 1889. Serial No. 308,556. (No model.)

To all whom it may concern:

Be it known that we, ANDREW J. FORSYTHE and GEORGE L. GWINN, citizens of the United States, residing at Kokomo, in the county of Howard and State of Indiana, have invented a new and useful Tension Device for Fence-Machines, of which the following is a specification.

This invention relates to tension devices for that class of fence-machines which are used for manufacturing combined picket-and-wire fences; and it has for its object to provide a tension device which shall be simple and inexpensive in construction, and by the use of which the strain upon the wire shall at all times be even and regular. The invention consists in the improved construction and arrangement of parts, which will be hereinafter described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of our tension device. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a side view of the same.

The same letters refer to the same parts in all the figures.

A and B designate a pair of vertical standards suitably mounted upon a transverse base or sill C, and provided with bearings for a series of transverse shafts D D, of which there may be any desired number, according to the number of strands of wire to be used in the fence which is to be constructed. The ends of the shafts D which extend through the standard A are provided with square winding-posts E, to receive a crank-handle or wrench, by means of which the said shafts may be turned.

F F are sleeves mounted upon the shafts D and provided at their inner ends adjoining the standard A with ratchet-wheels G, adapted to be engaged by pawls H, which are mounted pivotally upon the inner sides of said standards A. The reels of wire are in practice to be mounted upon and suitably secured to the said sleeves, so as to revolve with the latter, or the wire may be wound directly upon the said sleeves.

I I designate wheels or disks mounted upon the shafts D, adjoining the sleeves F. The inner ends of the hubs J of said wheels abut against the inner ends of said sleeves F, and the outer ends of the hubs J extend through the bearings in the standard B. The ends of the shafts D which extend beyond the hubs J are screw-threaded and provided with thumb-nuts K, by means of which the hubs J may be forced up against the sleeves F, so as to revolve with the latter, which are to be secured firmly upon or constructed integrally with the shafts D.

L designates a bracket extending rearwardly from the upper end of the standards A B, to which it may be connected by suitable braces. Bracket L is provided with a series of slots M, in which are journaled peripherally-grooved guide-pulleys N, over which pass ropes or cords O, the outer ends of which carry weights P, while the inner ends of said ropes or cords are firmly secured to the several wheels I at the peripheries of the latter.

In operation the wires pass from our improved tension device to the fence-machine, which may be of any desired construction. The cords O are wound upon the disks I in a direction opposite to that in which the wire is coiled upon the wheels or drums, and the weights P are normally lowered while the thumb-nuts K are tightened, so as to connect the hubs J of the wheels I securely with the sleeves F. It follows that as the wire is being uncoiled from the latter the shafts with the wheels I will be rotated and the cords O wound upon the latter, thus raising the weights P and causing them to strain the wires equally throughout. When the weights P have been raised to the highest limit, the pawls H are thrown into engagement with the ratchet-wheels G and the thumb-nuts K loosened, thus permitting the disks I to revolve while the weights P descend, without affecting the position of the sleeves F, or in any way loosening the wires coiled thereon. In this manner the fence may be woven with tightly-drawn wires, and the several strands are all kept evenly and equally strained, the weights P being of course equally heavy.

Having thus described our invention, we claim—

1. In a tension device for fence-machines, the combination, with a suitable frame, of a series of horizontal shafts, sleeves suitably secured upon the said shafts and having ratchet-wheels adapted to engage pawls mounted piv-

otally upon the frame, wheels or disks mounted loosely upon said shafts, means for temporarily connecting said wheels and causing them to revolve with the said sleeves, and cords attached to the peripheries of said wheels, passing over suitably-arranged guide-pulleys, and having weights attached to their ends, substantially as set forth.

2. In a tension device for fence-machines, the combination of a suitable frame, a series of horizontal shafts journaled therein, sleeves suitably secured upon the said shafts and having ratchet-wheels engaging pawls which are pivoted upon the frame, wheels or disks mounted loosely upon said shafts, thumb-nuts at the outer ends of said shafts, adapted to force the said wheels into contact with said sleeves, and cords attached to the peripheries of said wheels passing over suitable guide-pulleys and having weights attached to their ends, substantially as set forth.

3. The combination of the sill, the vertical standards, the rearwardly-extending bracket at the upper ends of said standards, the sleeves secured upon shafts journaled transversely in the said standards, ratchet-wheels upon the said sleeves, pawls pivoted to one of the standards and engaging the said ratchet-wheels, wheels or disks mounted loosely upon the shafts adjacent to the said sleeves, thumb-nuts upon the outer ends of said shafts, adapted to force said wheels into contact with said sleeves, and cords attached to the peripheries of the wheels, passing over suitable guide-pulleys and provided with weights at their free ends, substantially as herein set forth.

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

ANDREW his × mark J. FORSYTHE.

GEORGE L. GWINN.

Witnesses:

JAMES C. BLACKLIDGE,

GEORGE R. STEWART.