To all whom it may concern:

Be it known that I, THOMAS G. RYAN, citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Packages of Fencing Material, of which the following is a specification.

This invention relates to wire tighteners, and has for its object to provide a simple and an effective means for stretching built-up wire fencing or wire fabric.

Under the present practice, it is usual to dispense wire fabric adapted to be used for fencing in the form of rolls. The present invention contemplates providing a core for the wire roll adapted to be used in combination with bearings and retaining devices of peculiar design for the purpose of stretching the fabric when it is applied and before it is secured to the posts of a line of fencing. The said stretching means may also be used after the fabric is in position for the purpose of stretching the same to take up any sagging that might have occurred in the line of fabric as applied to the posts.

With this object in view the invention contemplates a core to which the end strands of the line wires of the fabric are attached and bearings adapted to be applied to one of the posts. The said core is provided with apertures through which a bar may be inserted for the purpose of rotating the same, and a ratchet wheel is mounted upon the core and serves as means for supporting the same in the bearings. One of the bearings is provided with a spring actuated pawl which is adapted to engage the teeth of the ratchet wheel and hold the core against reverse rotation after the section of fencing has been tightened.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view showing the fabric wound upon the core. Fig. 2 is a side elevation showing the core applied to a post. Fig. 3 is a section on line 3–3 of Fig. 2. Fig. 4 is a view taken on line 4–4 of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

As illustrated in the accompanying drawing the section of fencing is indicated at 1 and may be in the form of a roll having suitable line wires and vertical stay wires. This section may be of any desired pattern or design such as are commonly used. A core 2 is fixed in any desired manner to the ends of the line wires of the fabric 1 and the said fabric is in the first instance wound upon the said core. The core 2 is provided in the vicinity of its upper end with a series of perforations 3 which pass transversely through the same and through which a bar or rod may be inserted for the purpose of rotating the core. An upper bearing 4 is provided, and the said bearing consists of a strip of metal which is bent upon itself and which receives at its intermediate portion the upper part of the core 2. A spring actuated pawl 5 is pivotally mounted between the opposite side portions of the bearing 4 and is adapted to engage the teeth of a ratchet wheel 6 which is fixed upon the upper portion of the said core 2. A bolt 7 passes transversely through the end portions of the bearing 4 and is also adapted to pass transversely through a post 8 which is one of the line posts of the fence. If desired the bolt 7 may pass along one of the edge portions of the post 8, as it is not necessary in carrying out this invention that the bolt 7 pass through the said post. A bearing 9 is made from sheet metal or a strip of metal and is bent upon itself and at its intermediate portion receives the lower end of the core 2. A bolt 10 passes transversely through the end portions of the bearing 9 and may pass through the post 8 or may pass along the side of the same.

When the section of fabric 1 is completed the core 2 is attached to the ends of the line wires thereof and the said fabric is preferably wound upon the core. When the fabric is placed in position against a line of posts the core 2 may be rotated by inserting a bar through the perforations 3 and thus the fabric may be wound upon the said core between the bearings 4 and 9 and thus the fabric is tightened and brought to proper tension in the line of the fencing. The said fabric may then be stapled to the posts of the line of fence and should at any time the
said fabric become loose or should it sag a few turns of the core 2 will wind up the slack of the fabric upon the said core and thus the said fabric will be brought to its proper alinement and tension.

As will be observed by comparison of Figs. 1, 2 and 3 the intermediate portion of the strip of metal constituting the bearing 4 is bent to describe considerably more than half of a circle. It will also be observed that the said intermediate portion of the strip loosely receives the portion of the core 2 between the fence fabric 1 and the ratchet wheel 6. From this it follows that there is no liability of the strip 4 being displaced when the construction is shipped in the roll-form shown in Fig. 1.

The mounting of the pawl 5 and its spring between the side portions of the strip 2 contributes to the simplicity, compactness and inexpensiveness of the device while enabling the said side portions to house and protect against injury the greater portion of the pawl and all of the spring that operates therewith.

Manifestly any suitable bearing may be employed for the lower end of the core 2 and therefore it is not necessary that such a bearing be shipped with the construction in the form shown in Fig. 1.

When the fencing material is to be shipped in the form of a roll-package as shown in Fig. 1, the outer end of the strip of wire fabric can be temporarily tied with wire or other available means to an intermediate portion of the fabric. Then when the bearing 4 is temporarily tied by wire or other suitable means to one or more convolutions of the fabric, the core 2 can be turned about its axis to tighten the roll and hold the same in a compact state.

Having thus described the invention, what is claimed is:

A package of fencing material comprising a core, a ratchet wheel fixed on said core, wire fabric connected at one end to and wound about the core, a bearing having spaced side portions and also having a portion that describes more than half a circle and loosely receives the core at a point between the ratchet wheel and the wire fabric, and a spring pressed pawl pivoted between the spaced side portions of the bearing and arranged to engage the ratchet wheel.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS G. RYAN. [L. S.]

Witnesses:

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EMMA J. HEDGES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D.C."