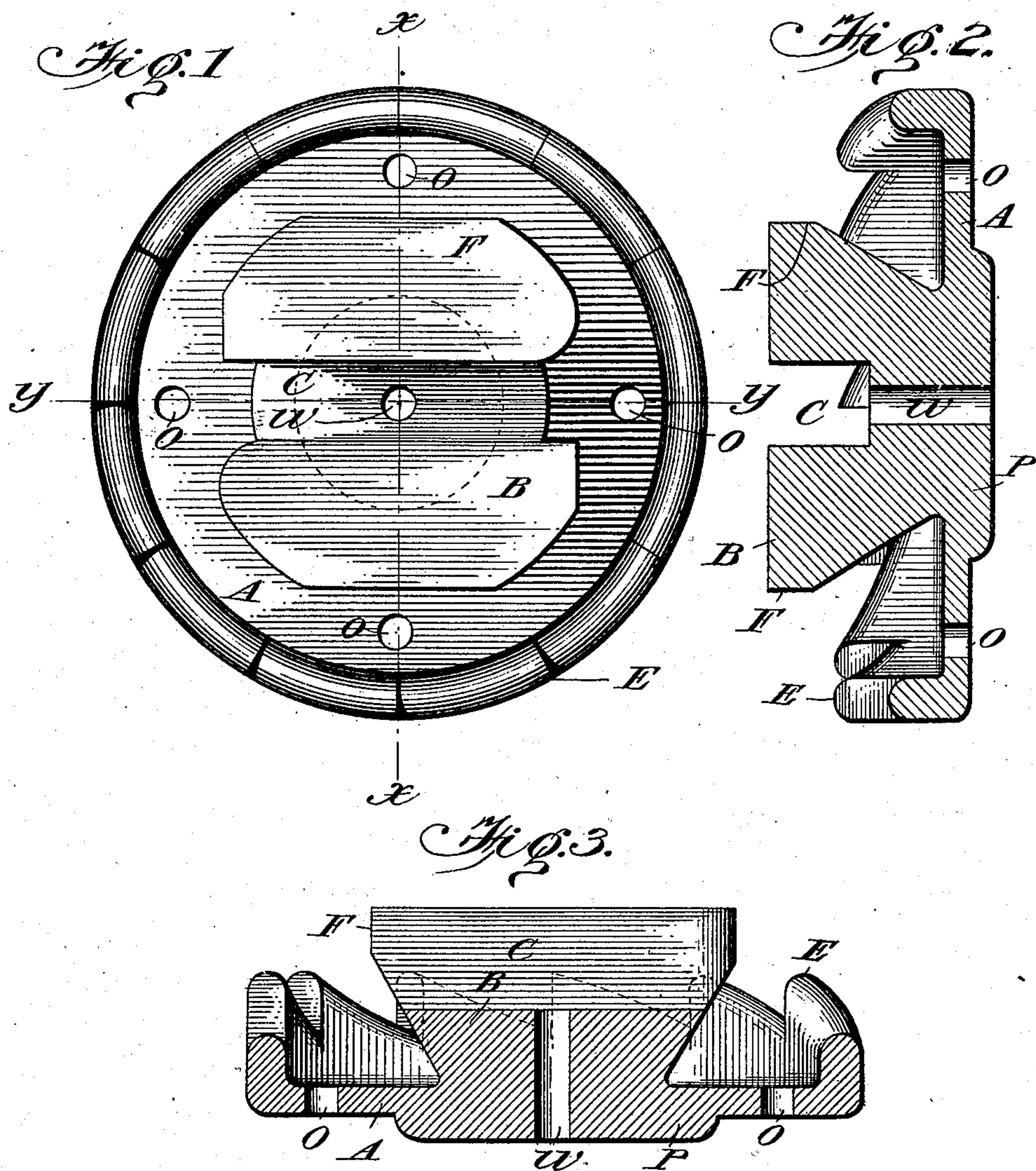


H. ENGLISH.
TIGHTENING DEVICE.
APPLICATION FILED APR. 3, 1908.

923,960.

Patented June 8, 1909.



Witnesses:
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UNITED STATES PATENT OFFICE.

HARVEY ENGLISH, OF MILLIKIN, LOUISIANA.

TIGHTENING DEVICE.

No. 923,960.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed April 3, 1908. Serial No. 425,038.

To all whom it may concern:

Be it known that I, HARVEY ENGLISH, a citizen of the United States, residing at Millikin, in the parish of East Carroll and State of Louisiana, have invented a new and useful Wire-Tightening Device, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters of reference refer to similar parts throughout the specifications and drawings.

The objects of my invention are to provide a device that can be used instead of the wooden pins and glass insulators now in use on poles, cross-arms and other surfaces supporting electrical and other wires; that will when secured to a pole or other surface support a wire chain or rope extended in a line, and without cutting the line, will quickly, effectively and securely take up the slack or sag of said line and hold it at any tension desired; that can be applied to the line between poles and get the same results. To do this I employ certain combinations of parts, first fully described and then pointed out in the claim.

In the drawings Figure 1., is a front elevation of the device. Fig. 2. is a cross section view on line *x. x.* of Fig. 1. Fig. 3. is a cross section view on line *y. y.* of Fig. 1.

B. is a cone shaped drum, the large end of said drum is flattened at sides F F. to receive operating wrench and bisected by slot C. to below level of top of ratchet E. The small end of drum B. has, secured thereto a flange A. having a laterally projecting rim thereon, said rim being formed with ratchet teeth E. adapted to engage a wire when wound on drum B.

P. is a projection on under side of flange A. This projection strengthens flange A. and reduces the contact surface between the device and the surface to which it may be attached. This projection may be made much thicker than shown in the drawings.

W. is a hole through the center of drum B. flange A. and projection P. to receive the fastening which secures the device to a pole or other surface.

O. O. O. O. are holes in flange A. to provide rapid drainage of water from device when used in horizontal position. These holes may be as large as a due regard to the strength of the device will allow.

The top and face of teeth of ratchet E. and two diagonally opposite corners of slot G. are of rounded shape to prevent line from breaking on sharp angles.

My device can be formed in one piece, of metal, glass or other material or combinations of materials, without loose parts. This device can be made of any size, to apply to any size of line from the smallest line made, to a large size cable.

To operate my device any suitable fastening, as a wire spike, wood screw or bolt, is placed in hole W. and the device is secured to a pole or other surface, allowing the device to rotate freely. The line is placed in slot C. A wrench is applied to sides F. F. of drum B., or a lever is inserted in slot C. of drum B. The device is then rotated in a direction which causes the line to come in contact with the rounded corners of slot C. wind around drum B. and engage with the teeth on ratchet E. The cone shape of drum B. and the strain on the line produced by rotating the device forces the line to the small end of drum B. thereby keeping the line in constant contact with ratchet E. When the line is tightened sufficiently the ratchet E. securely holds it at the tension secured.

My invention has the following advantages: It is inexpensive in manufacture, simple in operation, and effective in results. It is capable of universal application, can be fastened to a pole or other surface and applied to the line or can be applied to the line between the poles, the line, without cutting can then be tightened and held at any tension desired; can be used on any kind or size of line. When fastened to a pole or other surface it supports the line.

Changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

I am aware that prior to my invention, tightening devices have been made with flanges, ratchets, drums or spindles, slots and holes. I therefore do not claim originality of inventions in their use. But I do claim that by my combination of these and other elemental features I have produced a device which is different in design and results achieved from any tightening device heretofore produced; which can be used in any place where any device of this class can

be used; which can be used in places and positions where no other device of this class can be used, and produce same results as my device.

5 Of the various devices which have come under my observation, there is but one that can be fastened to a pole and operated; and in that one the line must be cut before it can be attached to the device. That device
10 would be useless where it is imperative that the line be in a continuous unbroken line; as for instance any electrical wire line. My device can be fastened to a pole or other surface and without cutting the line, will
15 tighten the line and hold it at any tension desired. My device supports the line, other devices, with the one above noted excepted, are supported by the line.

What I claim and desire to secure by Letters Patent is:

In a wire tightening device, a cone shaped drum having its larger end provided with wrench engaging surfaces and a transverse slot adapted to receive a line, a circular flange extending laterally from the smaller
20 end, said flange provided with an upstanding rim having ratchet teeth formed thereon, said flange having a centrally located thickened portion adapted to form a bearing surface, the drum having a centrally located
25 passage substantially as described. 30

HARVEY ENGLISH.

Witnesses:

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