No. 780,624. PATENTED JAN. 24, 1905.

F. SPINNER.

TENSION DEVICE FOR BINDERS.

APPLICATION FILED SEPT. 10, 1904.

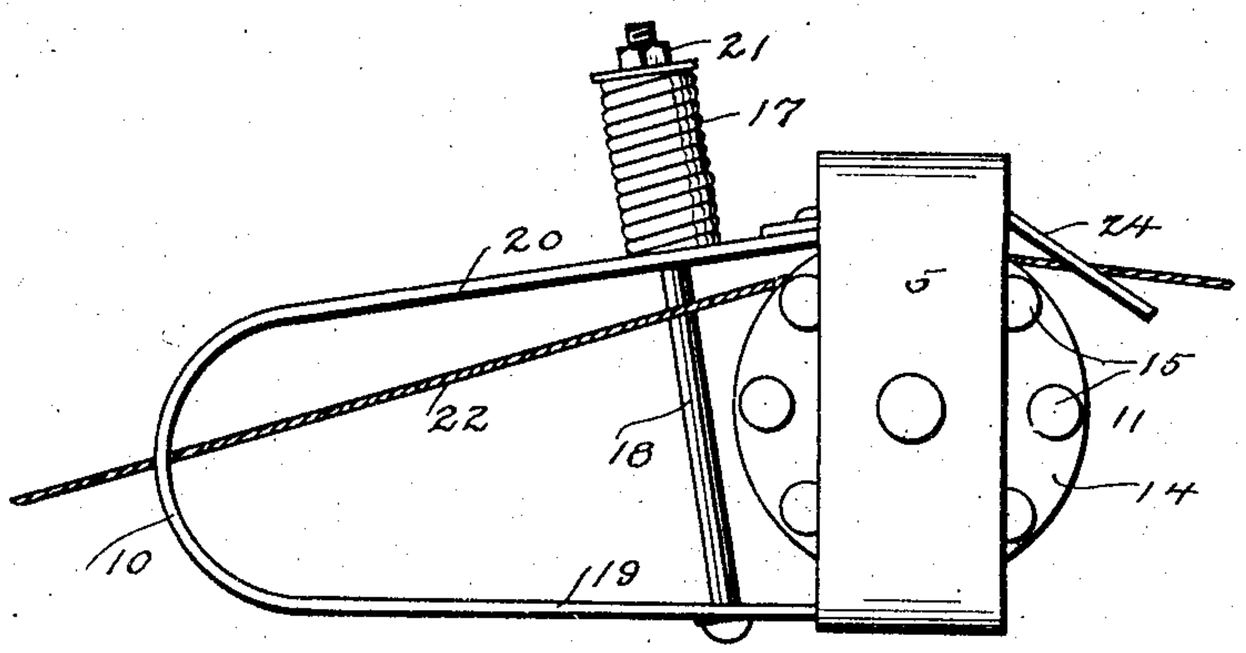

Fig. 1.

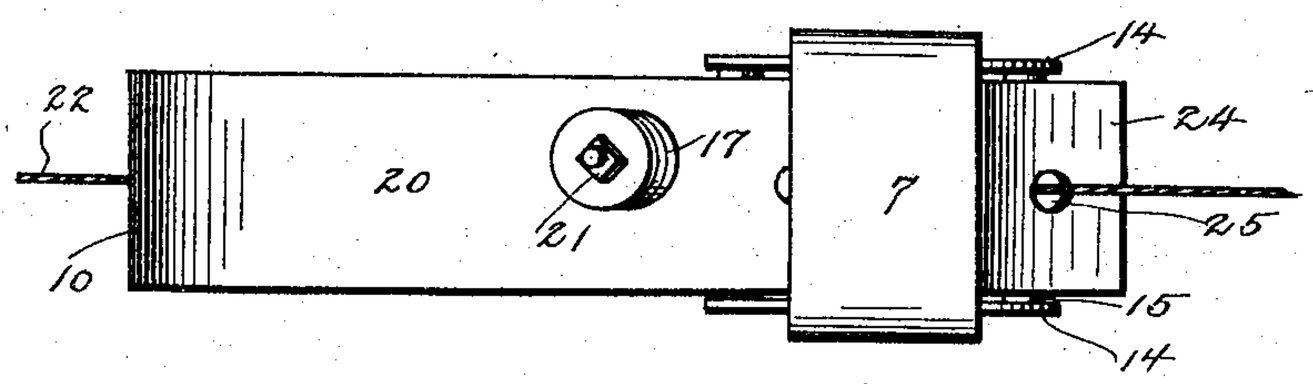

Fig. 2.

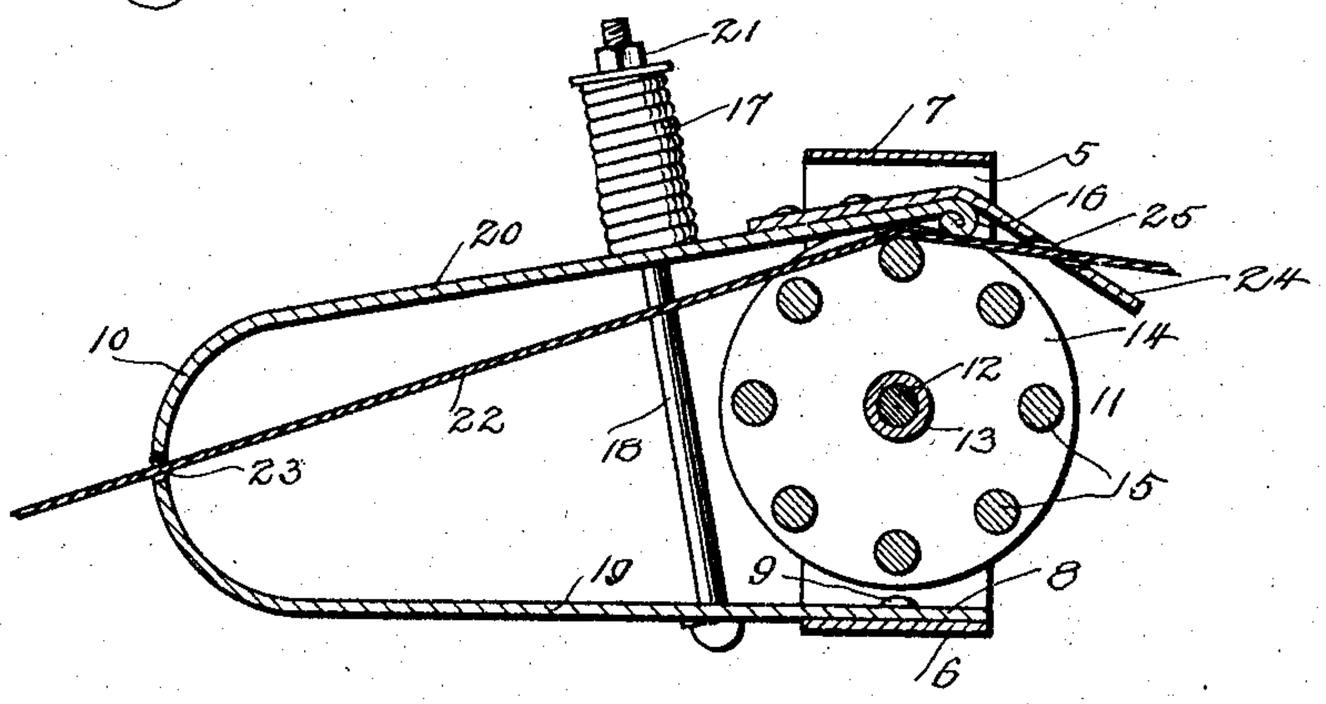

Fig. 3.

Witnesses
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No. 780,624. Patented January 24, 1905.

UNITED STATES PATENT OFFICE.

FRANK SPINNER, OF NEAR TAUNTON, MINNESOTA.

TENSION DEVICE FOR BINDERS.

SPECIFICATION forming part of Letters Patent No. 780,624, dated January 24, 1905.

Application filed September 10, 1904. Serial No. 224,029.

To all whom it may concern:

Be it known that I, FRANK SPINNER, a citizen of the United States, residing near Taunton, in the county of Lincoln and State of Minnesota, have invented new and useful Improvements in Tension Devices for Binders, of which the following is a specification.

My invention relates to a tension device for binders; and it consists in certain novel features of construction hereinafter described and claimed.

The object of the invention is to provide a simple and efficient device for properly regulating the tension of the twine and preventing the same from twisting or kinking.

In the accompanying drawings, Figure 1 is a side elevation of the invention. Fig. 2 is a plan view. Fig. 3 is a central vertical section.

Referring specifically to the drawings, the frame of the device comprises sides 5, a bottom 6, and a top 7. These are formed of a single strip of suitable metal, which is bent to form said parts. The ends of the strip meet at the bottom and are fastened by a strip 8, which is riveted or otherwise secured thereto, as at 9. This strip extends rearwardly from the frame and is curved, as at 10, and reënters the frame near the top thereof.

At 11 is indicated a roller which is rotatably mounted on a spindle 12, extending across the frame and secured in the sides 5 thereof. This roller comprises a hub 13, fitting on the spindle, end plates 14, and pins 15, connecting the latter and forming the rim of the roller. The end of the strip 8 is rounded, as at 16, and is pressed closely to the rim of the roller by a spring 17. This spring is coiled around a stem 18, fastened to the bottom portion 19 of the strip 8 and extending through the top portion 20 thereof, the outer end of the stem being threaded to receive a nut 21. The spring is confined between the top portion of the strip and the nut, and it presses the rounded end 16 of the strip onto the rim of the roller.

The twine (indicated at 22) passes through an opening 23 in the strip 8 and travels over the roller under the rounded end 16. This part, acting under the tension of the spring, continually exerts a pressure on the twine and properly tensions the same. This pressure can be varied to suit different conditions by turning the nut 21, whereby the compression of the spring is regulated. A short strip 24 is fastened to the free end of the strip and extends in front of the roller. This strip 24 has a hole 25, through which the twine passes and is guided as it leaves the roller.

The device will be fastened to the top of the twine-box or in any other suitable and convenient place, and it effectively serves the purpose for which it is intended.

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

1. A tension device comprising a frame; a roller journaled therein; a strip secured to the bottom of the frame and extending rearwardly therefrom, and reëntering the frame near the top thereof; a spring for pressing the free end of the strip against the rim of the roller; and a guide-piece extending from the strip and having a twine-opening.

2. A tension device comprising a frame; a spindle mounted therein; a roller on the spindle; said roller comprising a hub, end plates, and pins connecting said end plates and forming the rim of the roller; a strip secured to the bottom of the frame, and extending rearwardly therefrom, and reëntering the frame near the top thereof; a spring for pressing the free end of the strip against the rim of the roller; and a guide-piece extending from the strip and in front of the roller, and having a twine-opening.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK SPINNER.

Witnesses:
JOHN T. P. POWER,
S. A. ANDRZYEK.