(No Model.)

B. LOBEE.

COMBINED SPRING SCALE AND SCREW JACK.

No. 522,993 Patented July 17, 1894.

Fig.1

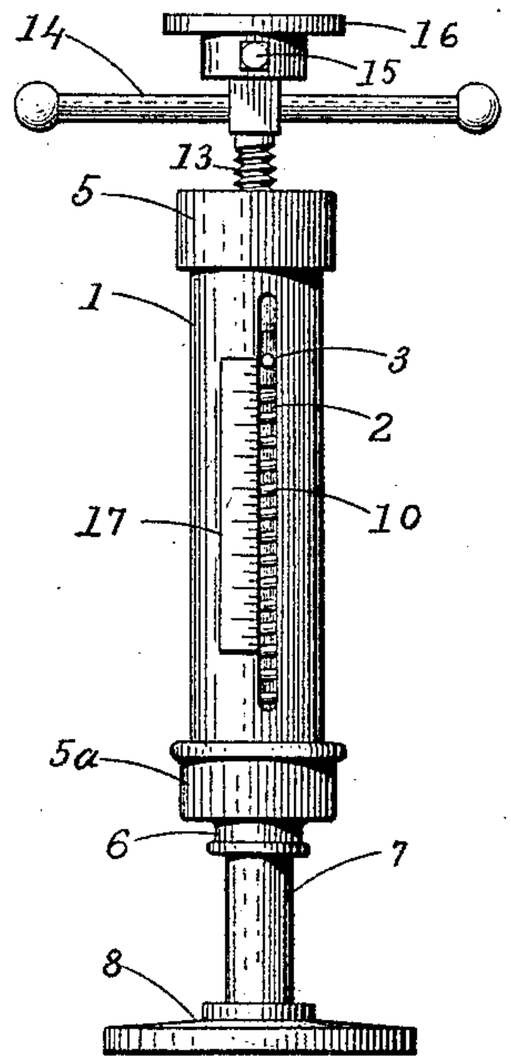


Fig.2

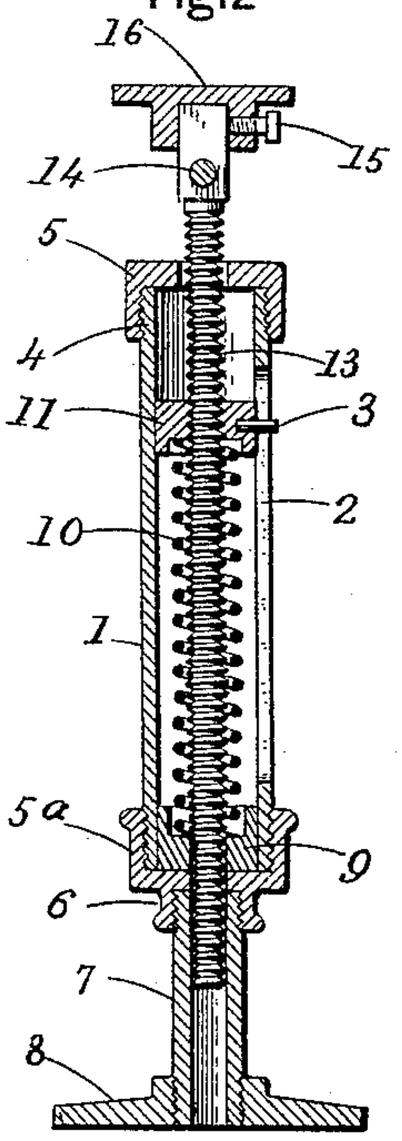


Fig.3

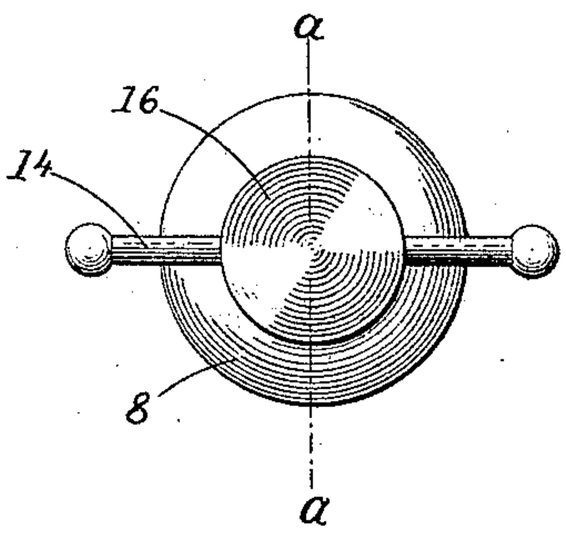
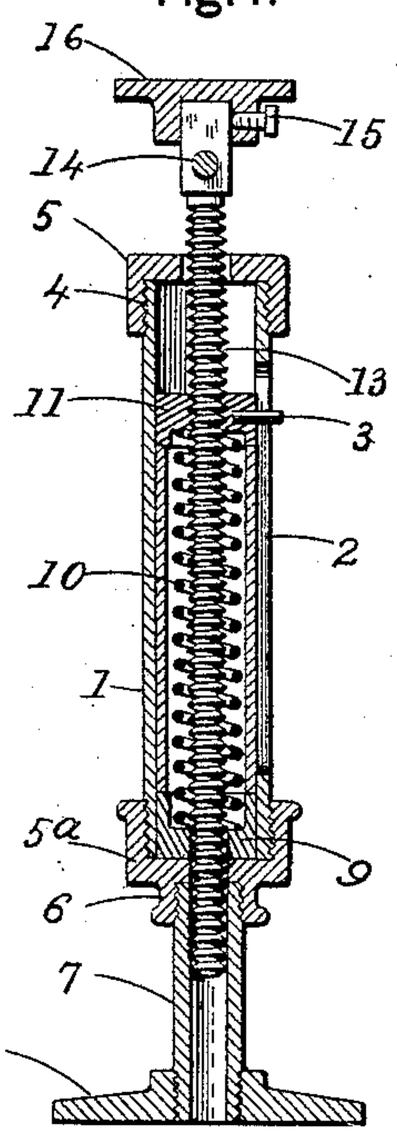


Fig.4.



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UNITED STATES PATENT OFFICE.

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COMBINED SPRING-SCALE AND SCREW-JACK.

SPECIFICATION forming part of Letters Patent No. 522,993, dated July 17, 1894.

Application filed April 24, 1894. Serial No. 508,787. (No model.)

To all whom it may concern:

Be it known that I, BART LOBEE, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in a Combined Spring-Scale and Screw-Jack, of which the following is a specification.

My invention relates to a combined spring scale and screw jack, and it will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1, is a side elevation of the device complete. Fig. 2, is a vertical central section in or about line *a a*, Fig. 3, all being in section except the vertical screw bar. Fig. 3, represents a top or plan view of the device as shown in Fig. 1. Fig. 4, is a vertical central section on or about line *a a*, Fig. 3, showing the construction when the device is used as a screw jack only, all of which will appear further on.

Referring to the drawings in detail, 1 represents the body of the device. It is usually made of iron gas pipe but any material suitable for the purpose may be used, and it is provided with a slot or opening 2, through which the indicating pin 3, projects.

On the top of the portion 1, is secured by a screw threaded portion 4, a cap 5, and at the bottom is a cap 5^a, attached in a similar manner. The cap 5^a, is provided with a reduced portion 6, having an interior screw threaded portion adapted to receive the screw threaded tubular portion 7, the lower end of which is rigidly secured to the base plate 8, which affords a good foundation.

Resting on the bottom, inside of the body or cylinder is a nut 9, having a recess in the top for the spiral spring to rest on or in. At the top of the spring 10, is another nut 11, also provided with a depression to receive and hold the top of the spring 10. Rigidly secured to the nut 11, is an indicating pin 3, this pin passes out through the slot or opening 2. A screw-bar 13, is adapted to screw through the nut 11, and is provided with arms 14, by which it is turned up or down through said nut. At the top of the screw bar is secured by a set screw 15, a supporting disk 16. On one side of the opening 2, is an index plate 17, having a series of graduations and figures for indicating weight.

The operation of the device is as follows:— When the device is used as a scale for weighing heavy weights, it is put under the load to be weighed, the arms 14, are then turned, which operation causes the screw bar to move the nut 11, downward, and consequently to compress the spring 10, the indicating pin 3, moving downward at the same time so as to indicate the weight. At the same time the spring is being compressed and the pin 3, is moving downward, the platen or disk 16, is being moved upward until the weight is lifted, at this point the indicating pin 3, has moved downward to the figure of the graduated index which indicates the weight or the weight required to compress the spring to the point shown.

It will be noticed that the screw bar 13, passes loosely down through the bottom nut 9, while the upper nut 11, is provided with a screw thread corresponding with that on the screw bar.

When it is desired to use the device as a screw-jack only, the lower or bottom cap 5^a, is unscrewed and removed, also the nut 9, and a tubular portion 18, is introduced, (see Fig. 4,) after which the nut 9, and cap 5^a, are returned to their places.

The tube 18, passes over the spiral spring 10, and fills the space between the nuts 9, and 11, so that in this case the spring 10, is neither used or acted upon, and the device acts as a screw-jack only.

I claim as my invention—

1. In a screw-jack, the combination of the body portion having the top and bottom caps and supporting base, and a slot or opening through it, an index plate at one side of said opening, a spiral spring resting on a support at the bottom, a screw nut resting on top of said spring and having an indicating pin projecting out through said opening, a screw-bar having a platen at the top, and a screw thread adapted to fit the screw thread in the nut at the top of the spring and pass through it, and means for turning the screw bar, the whole

combined for joint operation substantially as described.

2. In a screw-jack, the body portion having the upper and lower screw caps, a slot or opening through one side, and a supporting base, in combination with a spiral spring inclosed within it and resting upon a support, a screw nut on the top of said spring provided with an indicating pin passing through said opening, a screw bar having a screw thread adapted to fit the screw thread in the nut through which it passes, and a removable tubular portion 18, for the purposes described.

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