

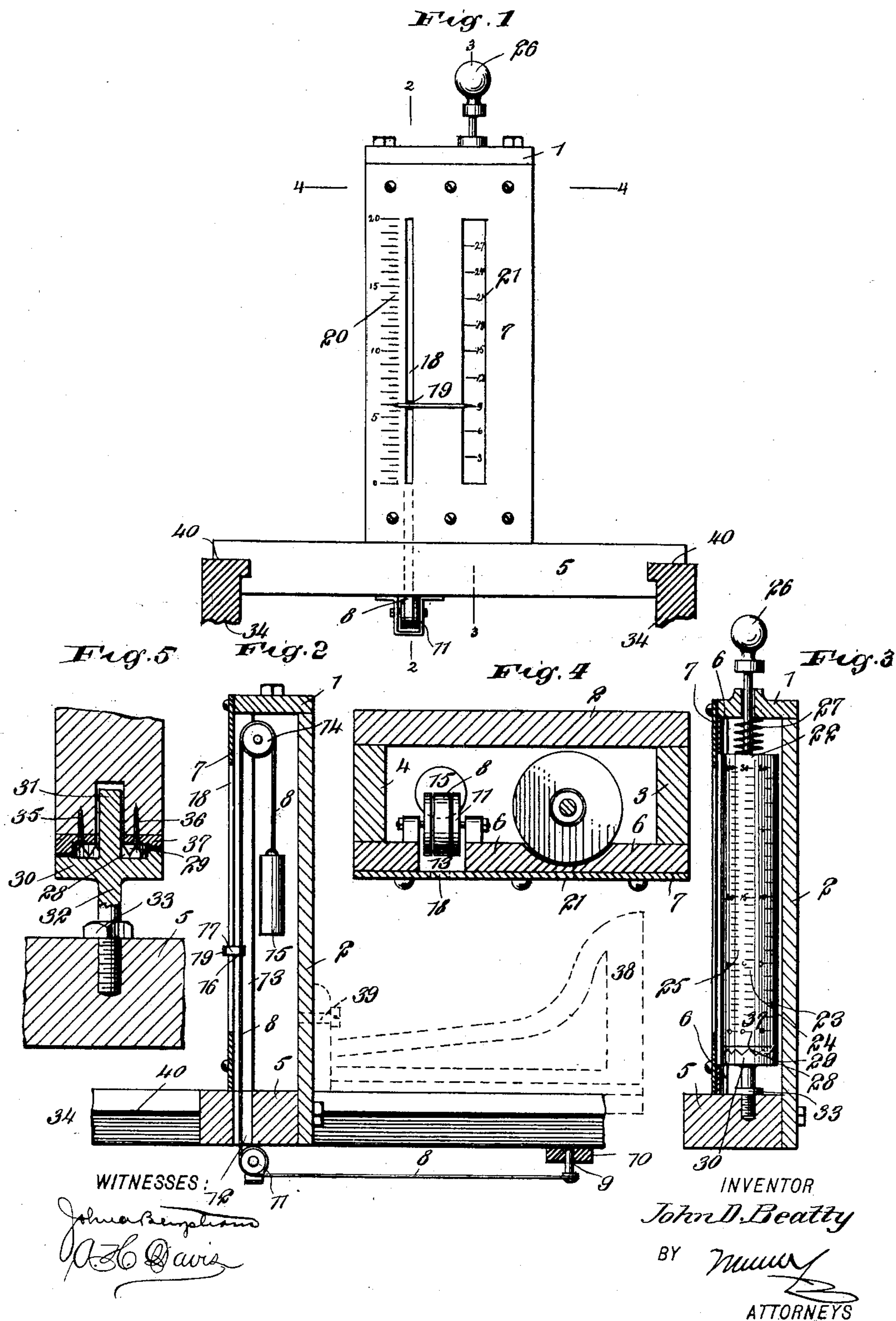
No. 710,238.

Patented Sept. 30, 1902.

J. D. BEATTY.
INDICATOR FOR SAWMILL KNEES.

(Application filed June 22, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOHN DAY BEATTY, OF KLONDIKE, NORTH CAROLINA.

INDICATOR FOR SAWMILL-KNEES.

SPECIFICATION forming part of Letters Patent No. 710,238, dated September 30, 1902.

Application filed June 22, 1901. Serial No. 65,644. (No model.)

To all whom it may concern:

Be it known that I, JOHN DAY BEATTY, a citizen of the United States, and a resident of Klondike, in the county of Bladen and State of North Carolina, have invented new and useful Improvements in Indicators for Sawmill-Knees, of which the following is a full, clear, and exact description.

My invention relates to indicators used upon sawmill-knees for showing the position of the log to be sawed, so that the thickness of lumber to be cut may be readily ascertained and that the width of the log may be exhibited in units of boards of different thickness.

My invention relates more particularly to a plurality of scales of different kinds and connections therefor as adapted for use in such indicators by which the position of the log may be shown in a diversity of relations for the purpose of cutting lumber of different thicknesses.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my device, showing in section the tracks forming a part of the carriage upon which it is mounted. Fig. 2 is a vertical cross-section through the line 2 2 of Fig. 1 and showing the head-block of the sawmill. Fig. 3 is a somewhat similar section upon the line 3 3 of Fig. 1 and showing certain details in elevation. Fig. 4 is a horizontal section upon the line 4 4 of Fig. 1, and Fig. 5 is a section detail showing the mounting of the lower end of the graduated cylinder 22 shown in Fig. 3.

A suitable box-like frame comprising a removable top 1, a back 2, sides 3 4, bottom 5, inner face 6, and outer face 7 is slidably mounted upon the carriage 34 of the sawmill. This frame is preferably about equal in height to the width of the carriage and is secured to the knee 38 by means of bolts 39, so as to move with said knee, always facing the operative and standing vertically, as shown in Figs. 1 and 2.

An inelastic belt 8 is secured at one end to a pin 9 in the back frame 10 of the carriage. From the pin the belt runs under the roller 11, which is pivoted beneath the sliding bottom 5 of the indicator-frame and movable

therewith, thence running upward through the aperture 12 in said bottom and through the groove 13 in the inner face, and passing over the roller 14 and down to the weight 15, by which it is always held taut.

Upon the belt 8 is secured a clip 16, provided with a neck 17, which projects through the slot 18 and supports the double-ended needle 19, as shown in Figs. 1 and 2. The needle, actuated by the belt, of course travels vertically as the entire frame is slid horizontally with the knee upon the tracks 40 of the carriage 34. One end of the needle traverses a slot 18, provided exteriorly with a fixed graduated scale 20, preferably the ordinary carpenter's scale of feet and inches, and the other end of said needle traverses some one of the several graduated surfaces 23 24 25, located upon the multiplex scale, which has the general form of a cylinder 22 and is fully described below, said cylinder being visible through the slot 21, along which one end of the needle travels, as shown in Fig. 1.

The several graduated surfaces 23 24 25, with which the cylinder 22 is provided, preferably represent different thicknesses of lumber, or they can be made up of any sort of units that may suit the needs and the taste of the operative. The cylinder is normally held against rotation, but can be rotated by the knob 26, whereby it can be raised slightly against the tension of the spiral spring 27. When the cylinder 22 is thus raised by the knob, the teeth 29, with which the lower end of the cylinder is provided, are disengaged from the teeth 28, which are stationary, so that the cylinder can be rotated to any extent necessary to bring any desired graduated surface 23 24 25 into view through the slot 21 and secured firmly in position by merely releasing the knob. The aforesaid teeth 29 are merely serrations cut in the crown-disk 37, which is removably secured to the cylinder by means of the screws 35 36, as shown in Fig. 5.

The teeth 28 for securing the cylinder are in the crown-disk 30, which is provided with a central boss 31 and stem 32, preferably integral therewith. The boss 31 projects axially into the end of the cylinder, and the stem 32 is adjustably secured in the bottom 5 by

means of a nut 33. By means of this nut the cylinder can be raised or lowered and firmly secured in its new position.

The figures upon the cylinder begin at the bottom and end at the top, as shown, so that the pointer travels from smaller to larger numbers as the knee shown in Fig. 4 is advanced to the right.

The operation of my device is as follows:

- 10 The cylinder 22 is adjusted by means of the knob 26, so as to expose through the slot the desired scale 23 24 25, and the knee 38 is moved in the usual manner, causing the entire indicator-frame to be carried with it and
- 15 causing the needle 19 to travel along the two slots 18 and 21, and thus traverse both the fixed scale 20 and the changeable scale, 23 24, or 25, and thereby exhibiting to the operator the position of the knee and in units of more
- 20 than one denomination.

By means of the nut 33 the crown-disk 30 can be so adjusted as to bring the respective fixed and changeable graduations into any relative position desired, so that the ends of

- 25 the fixed scale will register with the ends of the several movable scales or not, as desired.

With a log or a group of boards in place registering with the saw and ready to be cut, not only is the thickness of the stock as a

- 30 whole shown by the position of the needle upon the stationary scale 20, but by turning the cylinder so as to exhibit any desired sur-

face 23 24 25 of the multiplex scale the number of boards of the thickness desired can be instantly and graphically shown. By turning the cylinder so as to exhibit successively its several graduated surfaces the capacity of the stock, measured in boards of different thicknesses, may be successively exhibited, thus saving time and avoiding liability to make mistakes.

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

An indicator, comprising a slideway, a frame provided with a slot and slidably mounted upon the same, a needle mounted adjacent to said frame and free to travel relatively thereto, means for actuating said needle, a cylinder mounted within said frame and adjacent to said slot, said cylinder being provided with a graduated scale and with a toothed disk, a toothed disk mounted upon said frame and mating said first-mentioned toothed disk, and means controllable at will for adjusting the positions of said disks in the general longitudinal direction of said cylinder.

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

JOHN DAY BEATTY.

Witnesses:

M. E. HENRY,
FRANK SESSOURS.