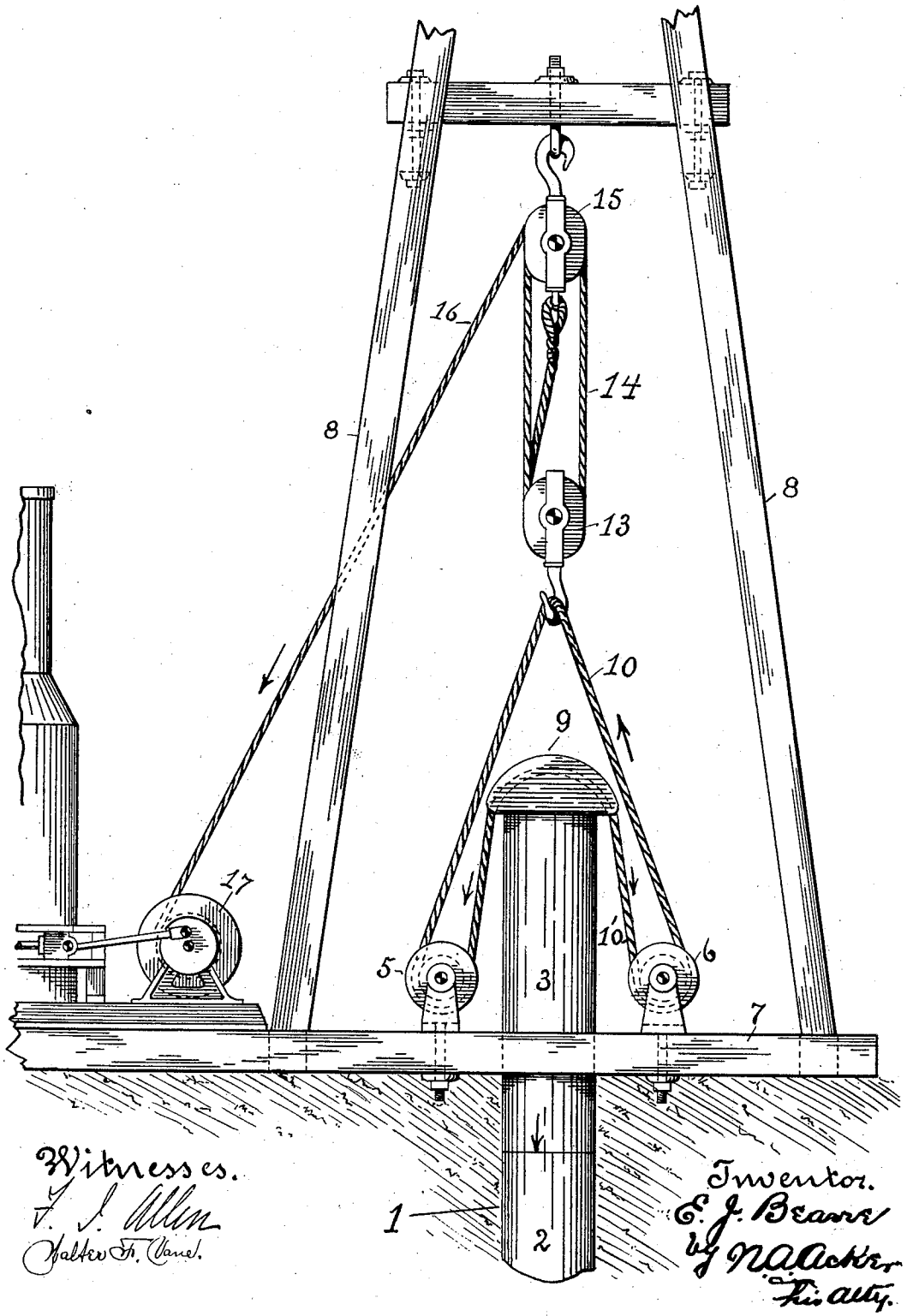
No. 759,412. PATENTED MAY 10, 1904.

E. J. BEANE.

MEANS FOR SINKING OIL WELL CASINGS.

APPLICATION FILED DEC. 7, 1903.

NO MODEL.



Witnesses.
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No. 759,412. Patented May 10, 1904.

UNITED STATES PATENT OFFICE.

EBEN JOSIAH BEANE, OF SAN FRANCISCO, CALIFORNIA.

MEANS FOR SINKING OIL-WELL CASINGS.

SPECIFICATION forming part of Letters Patent No. 759,412, dated May 10, 1904.

Application filed December 7, 1903. Serial No. 184,224. (No model.)

To all whom it may concern:

Be it known that I, EBEN JOSIAH BEANE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Means for Sinking Oil-Well Casings; and I do hereby declare the following to be a full, clear, and exact description of the same.

The present invention relates to certain new and useful means for the sinking of casings into a well being drilled, the object thereof being to simplify the work of sinking the casing-sections by dispensing with the heavy mechanism at present employed for such purpose.

The drawing, which is a side view in elevation, discloses the invention as applied to the sinking of an upper section of a well-casing, which casing-section is illustrated as partly within the well. An ordinary well-derrick is set forth, which derrick has applied thereto the hoist-cable for exerting a pulling strain onto the pressure-cable for sinking the casing-section to be forced downward.

In the drawing the numeral 1 is used to indicate the bore of an oil-well being drilled, 2 the casing fitted therein, and 3 a section of casing to be forced down or driven into the well being drilled.

The apparatus or means employed for forcing down the casing-sections comprises an endless pressure-cable which works through sheaves 5 6, secured or anchored to the base-timbers 7 of the derrick 8. In length the endless cable is such as to enable at least one bight of the same to fit over the upper end of the casing-section 3 to be driven within the well, said bight resting upon what I shall term a "saddle-block" 9, placed on the upper end of the casing-section 3. The purpose of this block is to prevent the endless pressure-cable injuring the end of the said casing-section when downward strain is imparted thereto.

The companion bight—say 10—of the pressure-cable is engaged by a hook 11, swiveled to the frame 12 of pulley 13, through which pulley the hoist-cable 14 works. Said cable 74 also works through the pulley 15, located at the top of the derrick 8. One end of the said cable is attached to the upper sheave 15, the free end 16 thereof being wound upon the drum 17 of an ordinary hoisting-engine. By the employment of the pulleys great pulling strain is obtained with the expenditure of the least power. As the hoist-cable is wound onto the drum 17 the lower pulley 13 is drawn upward. Inasmuch as the lower pulley 13 is connected to the bight 10 of the pressure-cable, an upward pull is exerted thereon, tending to pull the opposite bight 10′ downward or toward the derrick's base. As the bight 10′ of the pressure-cable passes over the saddle-block 9 it is obvious that the upward strain imparted to the bight 10 transmits an opposite strain to the bight 10′ of the said pressure-cable, hence gradually forcing the casing-section 3 downward proportionately to the upward movement of the bight 10 of the pressure-cable.

A simple, inexpensive, and exceedingly simple means for lowering the well-casing is thus provided which will readily appeal to those familiar with the difficulty connected with the sinking of sections of well-casing.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

1. Mechanism for sinking well-casings, the same comprising an endless pressure-cable, anchored sheaves located at opposite sides of the well and through which the endless pressure-cable works, one bight of the said cable passing over the top of the casing-section to be forced downward, and hoisting means connected to the opposite bight of the said cable, so that an upward strain exerted thereon imparts to the first-named bight of the pressure-cable a downward strain.

2. Mechanism for sinking well-casing, the same comprising an endless pressure-cable, anchored sheaves located at opposite sides of the well and through which the endless pressure-cable works, one bight of the said cable passing over the top of the casing-section to be forced downward, and pulley means connected to the opposite bight of the said cable, so that an upward strain exerted thereon by said means imparts to the first-named bight of the pressure-cable a downward strain.

3. Mechanism for sinking well-casing, the

same comprising an endless pressure-cable, anchored sheaves located at opposite sides of the well, and through which the said endless pressure-cable works, one bight of the said cable passing over the top of the casing-section to be forced downward, a saddle-block onto which said bight of the pressure-cable bears, a well-derrick, pulley means suspended therefrom, and connection between said means and the free bight of the pressure-cable so that an upward strain exerted upon the said free bight transmits a downward pressure to the first-named bight of the pressure-cable.

In witness whereof I have hereunto set my hand.

EBEN JOSIAH BEANE.

Witnesses:
THOS. FLINN, Jr.,
N. C. BRIGGS.