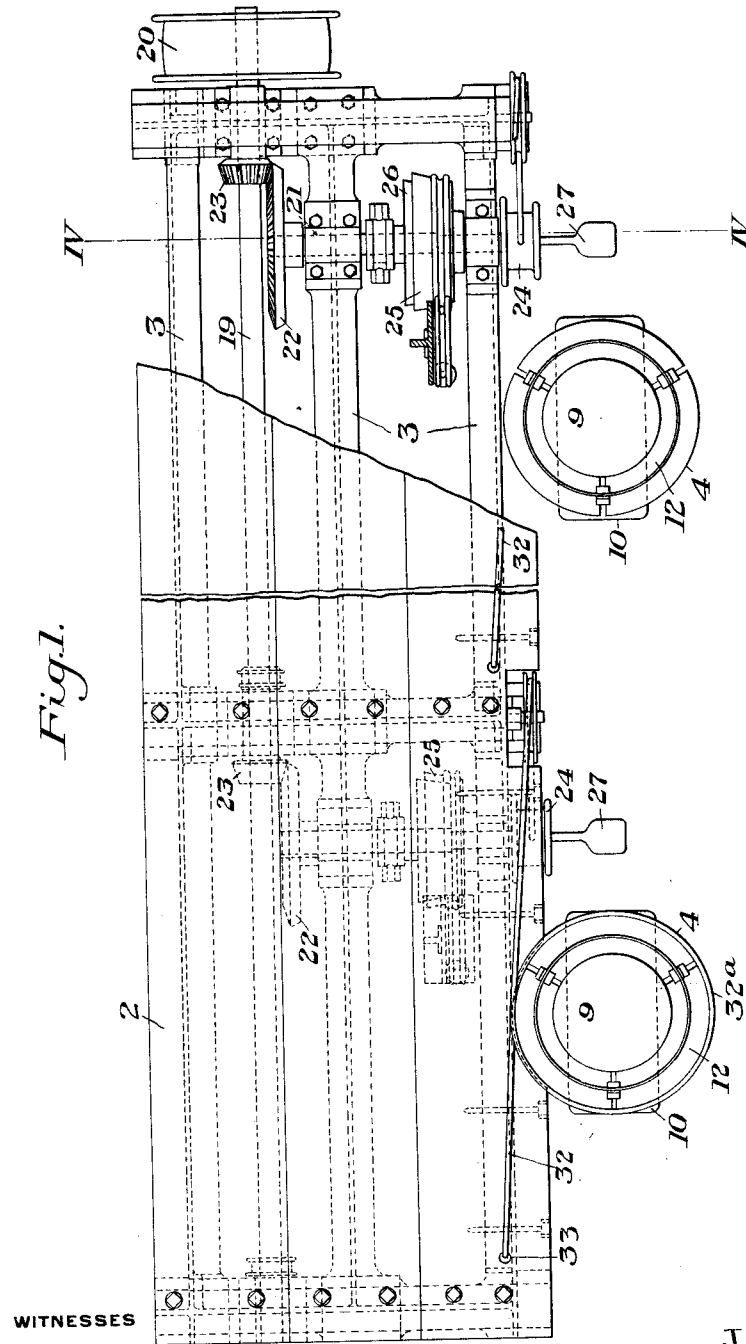


J. E. YOUNG.
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 APPLICATION FILED DEC. 2, 1909.

1,065,490.

Patented June 24, 1913.

3 SHEETS—SHEET 1.



Walter Fawcett
E. B. Blomberg

INVENTOR
J. E. Young.
 by *Baker, Byrnes & Parmelee,*
 his Attys.

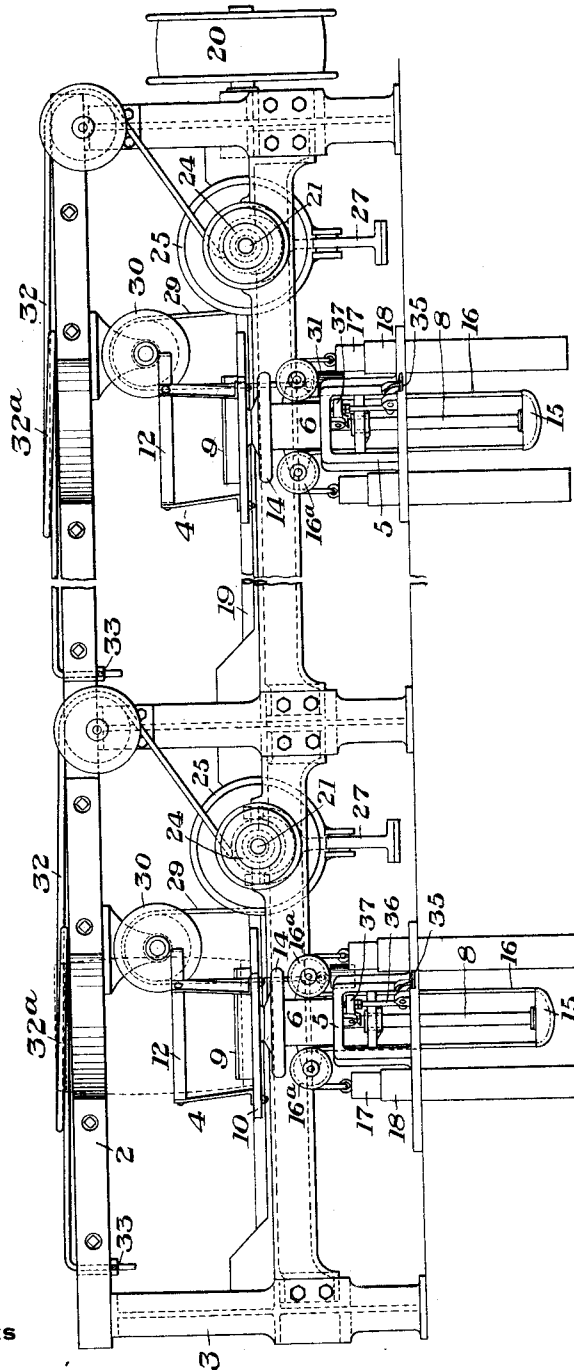
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Fig. 2.



WITNESSES

Wm. L. Lanning
E. B. Blum

INVENTOR

J. E. Young,
by Baker, Byrnes & Parnell,
his Atty.

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Fig. 4.

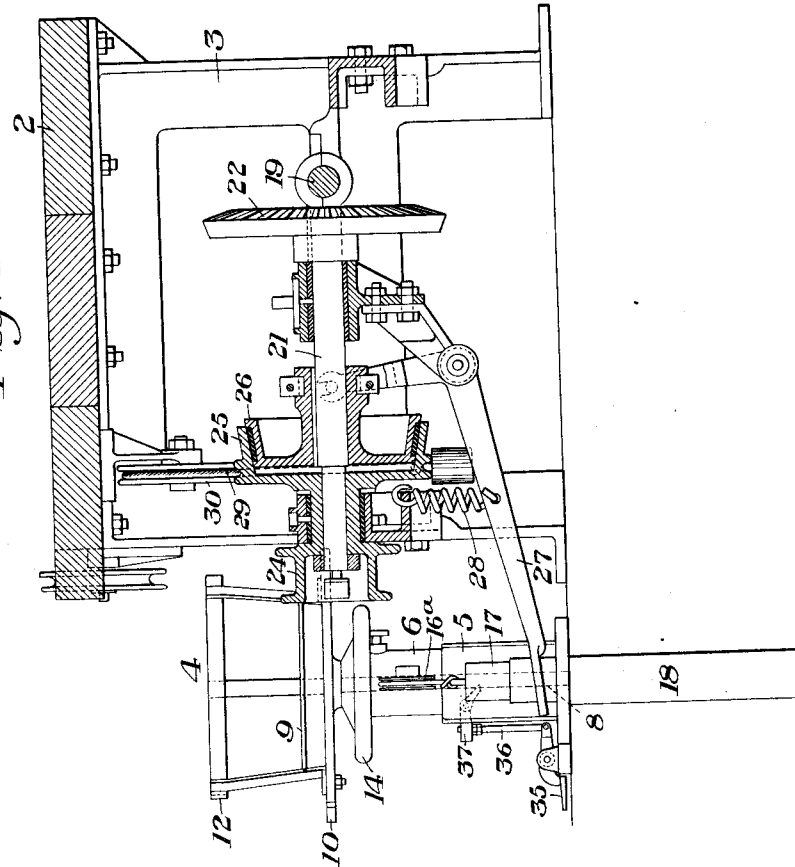
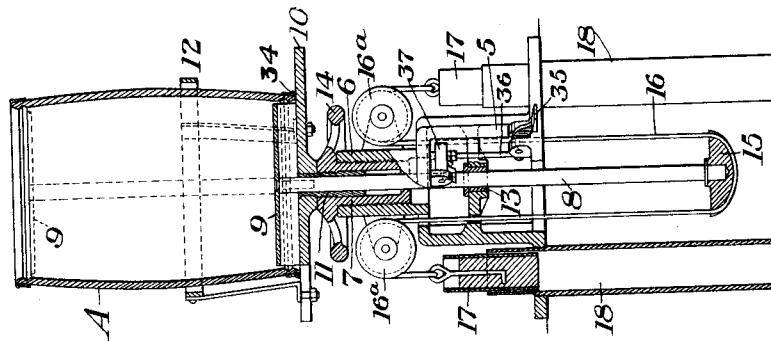


Fig. 3.



WITNESSES

Walter Tamaris
G. B. Blum

INVENTOR

J. E. Young,
by Bechert, Byrnes & Parmelee,
his Attys

UNITED STATES PATENT OFFICE.

JACOB E. YOUNG, OF CLEVELAND, OHIO, ASSIGNOR TO THE AMERICAN STEEL AND WIRE COMPANY OF NEW JERSEY, OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

HEADING-UP, SETTING-UP, AND WINDLASSING MACHINE.

1,065,490.

Specification of Letters Patent.

Patented June 24, 1913.

Application filed December 2, 1909. Serial No. 530,931.

To all whom it may concern:

Be it known that I, JACOB E. YOUNG, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Heading-Up, Setting-Up, and Windlassing Machine, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of one form of apparatus embodying my invention, and partly broken away; Fig. 2 is a side view of the same; Fig. 3 is a sectional elevation of one of the setting-up forms; and Fig. 4 is a section on the line IV—IV of Fig. 1.

My invention has relation to a combined heading-up, setting-up and windlassing machine for kegs, barrels and the like, and is designed to provide apparatus of this character by means of which coöperage can be assembled with ease and rapidity.

The precise nature of my invention will be best understood by reference to the accompanying drawings, which will now be described, in which I have shown the preferred form of apparatus embodying my invention, it being premised, however, that various changes may be made in details of construction and arrangement of my invention as defined in the appended claims.

In these drawings, the numeral 2 designates the setting-up and windlassing bench or table supported by a plurality of up-rights 3.

4 designate setting-up forms, which are arranged adjacent to the bench 2 below the top of the same. In these drawings, I have shown two of these forms, but it will be understood that any desired number may be employed, and that the bench may be of any desired length to accommodate the required number of forms. Each of these forms comprises a supporting frame 5 having an interiorly threaded upwardly extending hub or sleeve 6 which is engaged by an exteriorly threaded sleeve 7 secured to a vertically movable rod or plunger 8. This rod or plunger has secured to its upper end an interchangeable head plate 9.

10 designates a revolving table plate having secured thereto a steel bushing 11 which guides the rod or plunger 8, and to which is secured an interchangeable setting-up basket 12. The frame 5 is also provided

with a guiding bushing 13 for the rod or plunger 8.

14 is a hand wheel secured on the sleeve 6, and which can be operated to raise or lower the table plate 10 to suit kegs of different heights.

Secured to the lower end of the rod or plunger 8 is a shoe 15 which is grooved to receive a cord or rope 16. The two end portions of this cord or rope pass upwardly over pulleys 16*, weights 17 being secured thereto. These weights preferably slide in the vertical guides 18.

19 is a horizontally extending jack shaft which is journaled in the frame of the heading-up, setting-up and windlassing bench, and which is driven by a belt pulley 20, or other suitable means.

In connection with each of the setting-up forms there is provided a shaft 21 extending at right angles to the shaft 19 and connected thereto by bevel gear wheels 22 and 23. Loosely mounted on each shaft 21 is a drum 24 which is connected to a friction clutch member 25. 26 is a coöperating friction clutch member splined or keyed to the shaft 21 and longitudinally movable thereon. The clutch member 26 is arranged to be thrown into driving engagement with the clutch member 25 by means of the foot lever 27, to which is connected a retracting spring 28. Connected to the clutch member 25 is a cord or cable 29, which passes upwardly over a pulley 30, and has a weight 31 connected to its free end.

32 designate windlassing ropes or cables secured to the bench at one end as indicated at 33, and each connected at the opposite end to one of the drums 24.

The operation is as follows:—The operator places a steel hoop 34 within the basket 12 on the table plate 10. He then enters the lower ends of the staves A inside this hoop, and when all the staves have been placed, he presses a foot lever 35, which is connected by rod 36 with a pivoted dog 37, which is arranged to have a biting grip on the rod or plunger 8. This movement of the foot lever releases this dog and permits the counterweights 17 to raise the head plate 9 and rod or plunger 8 to the position shown in dotted lines in Fig. 3. The operator then places the keg head on top of the head plate 9, and passes the loop 32* of the windlassing cable

32 around the upper ends of the staves. He then presses the treadle lever 27, which shifts the clutch member 26 into driving engagement with the clutch member 25. This
5 causes the revolution of the drum 24 to thereby grip the windlassing cable tightly around the staves at the head. The operator then places the bottom steel hoop on the keg, and releases the pressure on the foot treadle
10 27. The spring 28 then acts to release the clutch mechanism; and at the same time the counterweight 31 returns the drum 24 to its normal position and slacks the windlassing cable. The operator then picks off the keg
15 and presses the head plate 9 and plunger rod 8 back to their original position.

The advantages of my invention will be readily understood by those skilled in the art, since it provides a combination of power-
20 driven, heading-up, setting-up and windlassing machine by which the work of assembling cooperage can be performed with ease and rapidity.

Any desired number of setting-up forms
25 may be employed, all having their windlassing cables actuated from the common shaft 19, which is a constantly driven shaft. The windlassing operation is, however, through the clutch mechanisms described, conducted
30 independently at each setting-up form.

Various changes may be made in the details of construction and arrangement of the parts. Thus, any suitable form of setting-up baskets may be employed; the manner of
35 supporting the various operating parts can be changed; different forms of clutch mechanism and actuating connections therefor may be used in connection with the drums for the windlassing cables, and numerous other
40 changes may be made.

What I claim is:—

1. In a device of the class described the combination with a bench, a power driven
45 windlassing cable having frictionally operated driving means and mechanism for releasing said frictional driving means, of a setting-up form, said form comprising a ro-

tatable table plate having a setting-up basket thereon, a frame on which said plate is mounted, means for adjusting the table plate
50 vertically on the frame, a vertically movable head-plate above the table plate, and a counterweight connected thereto whereby the head-plate is lifted vertically.

2. In a device of the class described the
55 combination with a bench, a power driven windlassing cable having frictionally operated driving means and mechanism for releasing said frictional driving means, of a setting-up form, said form comprising a ro-
60 tatable table plate having a setting-up basket thereon, a frame on which said plate is mounted, means for adjusting the table plate vertically on the frame, a vertically movable head-plate above the table plate, a counter-
65 weight connected thereto whereby the head-plate is lifted vertically, and frictional mechanism for holding said head-plate in lowered position.

3. In a device of the class described the
70 combination with a bench, a power driven windlassing cable having frictionally operated driving means and mechanism for releasing said frictional driving means, of a setting-up form, said form comprising a ro-
75 tatable table plate having a setting-up basket thereon, a frame on which said plate is mounted, means for adjusting the table plate vertically on the frame, a vertically movable head-plate above the table plate, a counter-
80 weight connected thereto whereby the head-plate is lifted vertically, frictional mechanism for holding said head-plate in lowered position, and a treadle for releasing said
85 frictional plate holding mechanism to permit lifting of the plate by the counterweights.

In testimony whereof, I have hereunto set my hand.

JACOB E. YOUNG.

Witnesses:

FRED HEBERLEIN,

JOHN C. VOLLMAN.