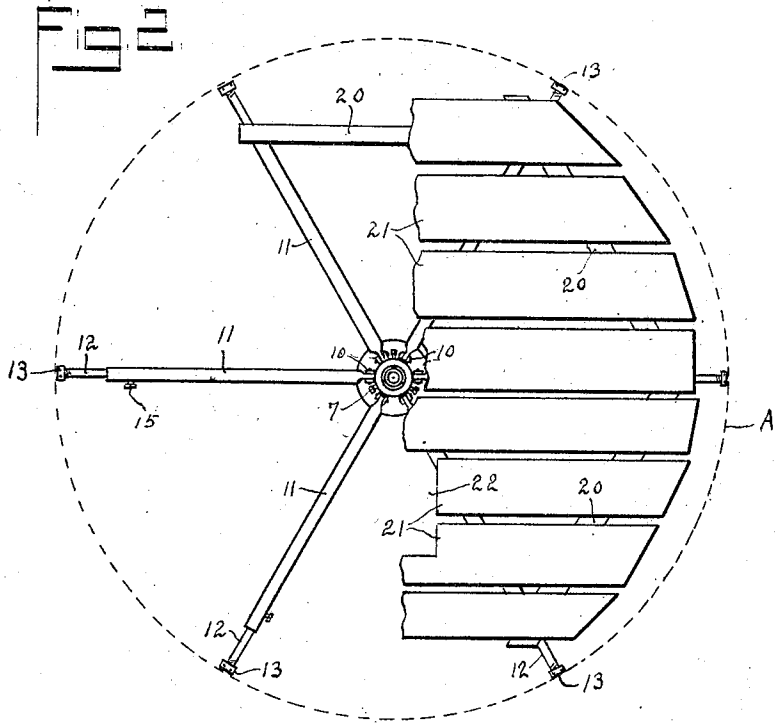
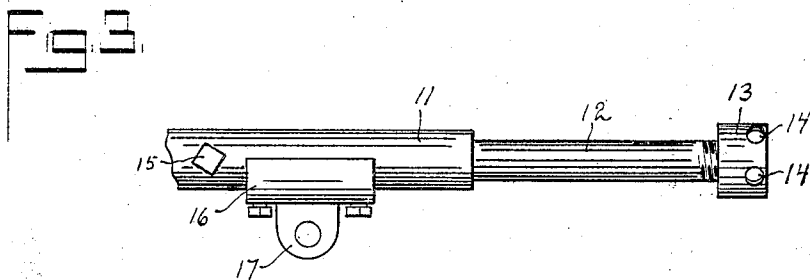


J. MYERS.
SILO SCAFFOLD.
APPLICATION FILED SEPT. 29, 1919.

1,380,074.

Patented May 31, 1921.
2 SHEETS—SHEET 2.



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JOHN MYERS, OF STERLING, ILLINOIS.

SILO-SCAFFOLD.

1,380,074.

Specification of Letters Patent.

Patented May 31, 1921.

Application filed September 29, 1919. Serial No. 327,146.

To all whom it may concern:

Be it known that I, JOHN MYERS, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Silo-Scaffolds, of which the following is a specification.

My invention has reference to silo scaffolds, and has for its purpose to provide a supporting device which can be progressively raised as the walls of the silo are constructed, which can be readily operated, and which can be easily taken apart for transportation from one point to another. The parts thereof are also adjustable, so that it can be used in the construction of silos of varying diameters. By its use there is a great saving in expense over the common method of forming a staging of boards, which can only be used in building two or three silos, at best.

In the drawings:

Figure 1 is a vertical medial section of my invention, as the same appears when in use. Fig. 2 is a plan view thereof with the superstructure removed. Fig. 3 is an enlarged detail of the outer end of one of the arms 11.

The device is designed to be supported entirely upon a center-pole, formed of tubular sections 1 of convenient length, having threaded connections at their ends. In the upper end of the upper section is inserted a plug 2, with which are connected stay-wires 3. Slidable on the center-pole is a sleeve 4, provided near its upper and lower ends with hubs 5 and 6, said sleeve projecting upwardly beyond the hub 5, the extension thereof having two or more set-bolts 7, adapted for engagement with the pole 1. The sleeve 4 also has a downward extension 8, provided with set-bolts 9, also engaging the pole 1, and assisting in holding the sleeve rigidly in place thereon.

On the hub 5 are pairs of ears 10, between which are held the flattened inner ends of tubular arms 11, by means of bolts passing through such ears and arms. In the outer ends of said arms are telescopically supported rods 12, threaded on their outer ends to receive similarly threaded caps 13, provided with openings 14. The rods 12 can be held in place by means of set-bolts 15. Secured to the lower faces of the arms 11, near the outer ends thereof, are clips 16, each provided with a pair of perforated ears

17, between which are held the upper ends of rods 18, the lower ends of which are similarly secured between pairs of ears 19 on the hub 6. Upon the outer ends of the arms 11 are laid cross-pieces 20, which support a platform formed of boards 21. At one point in said platform is an opening 22, to permit the passage of material, as hereinafter mentioned. In Fig. 2 a part of the platform is broken away, to more clearly disclose the structure by which it is supported.

Secured to the upper section 1 is a cross-arm 23, having a series of openings, in one of which is secured a double pulley 24, carrying a cable 25, which passes downwardly through a similar pulley 26, detachably connected with the upper end of the sleeve 4. The arm 23 is braced by an arm 27, supported from a collar 28, also attached to the section 1. At the opposite end of the arm 23 is supported a pulley 29, over which passes a cable 30 by means of which material may be hauled up through the opening 22 in the platform.

Encircling the center-pole, just above the sleeve 4, is a collar 31, to which is secured a hollow member 32, so as to have a vertical swinging play. Telescopically mounted in the member 32 is a rod 33, which may be held in adjusted positions by means of a set-screw 34. This device is used as a gage, being turned down into a horizontal position, when in use, and moved around in a circle to determine the circumference of the inner wall of the silo, as indicated in broken lines at A. When not in use it can be turned upwardly against the center-pole, out of the way.

In operation, two sections of the center-pole are erected and provided with stay-wires, as shown in Fig. 1, with said center-pole perfectly plumb, and the foot thereof at a central point of the contemplated structure. In practice, the lower end of the pole would rest upon the earth in the bottom of an excavation of some three or four feet in depth. Before erecting the lower section of the center-pole the sleeve 4 would be attached thereto, and after the other section is raised and stayed the arms 11 are put in position, and the braces 18 connected therewith, and with the hub 6. The platform is then constructed, and the cross-bar and tackle connected with the upper section 1 by means of a short ladder.

The silo wall is carried upwardly as far

as possible by workmen standing on the ground, and then the work is continued from the platform. When there is a course of blocks in line with the arms 11, and provided with the usual bond, the rods 12 are moved outwardly until the caps 13 are in contact with said blocks, whereupon the caps are turned outwardly, holding the center-pole and scaffold from side movement, and preventing the bending of said pole. When the work has been carried a convenient distance beyond the platform, the caps are turned inwardly a sufficient distance to permit them to slide along the inner wall of the silo, the set-bolts 7 and 9 released, and the scaffold drawn upwardly a desired distance upon the center-pole. This is accomplished by a workman on the platform by means of the cable 25, and other workmen below, who make use of the rope 30. For this purpose the upper end of the rope 30 is connected with the sleeve 4. For greater safety, before the set-bolts are released, the lower end of the rope 30 should be connected with a permanent object, and the lower end of the rope 25 should be attached to the frame-work of the scaffold.

When the scaffold is raised until it occupies a position upon the upper section 1, it is secured in place by the set-bolts in the sleeve 4 and the caps 13 again caused to engage the wall of the silo. The center-pole is then extended by adding another section thereto, and properly staying the same,

after which the cross-arm 23 is fixed in place on such upper section.

After the silo is completed the above operation is reversed, and when at a point sufficiently near the ground, the braces 18 and arms 11 are disconnected, and the sleeve 4 removed from the section 1. The parts will thus readily pass through the opening in a silo, and can be again put together for the next piece of work.

It will be obvious that the rods 12 can be adjusted for a silo of any diameter. It will also be seen that the structure is simple, and of comparatively light construction.

What I claim and desire to secure, is:

A device of the class described, comprising a sectional center-pole; a sleeve slidable thereon and provided with means for attachment thereto; radial supporting arms detachably connected with said sleeve near the upper end thereof; telescopic sections at the outer ends of said arms, provided with wall-engaging means; braces uniting said arms and the lower end of said sleeve, and detachably connected with both thereof; a circular member rotatably mounted on said center-pole above said sleeve; and a telescopic arm hingedly connected with said circular member, and capable of describing a circle about said device, when said arm is in a horizontal position.

In testimony whereof I affix my signature.

JOHN MYERS.