

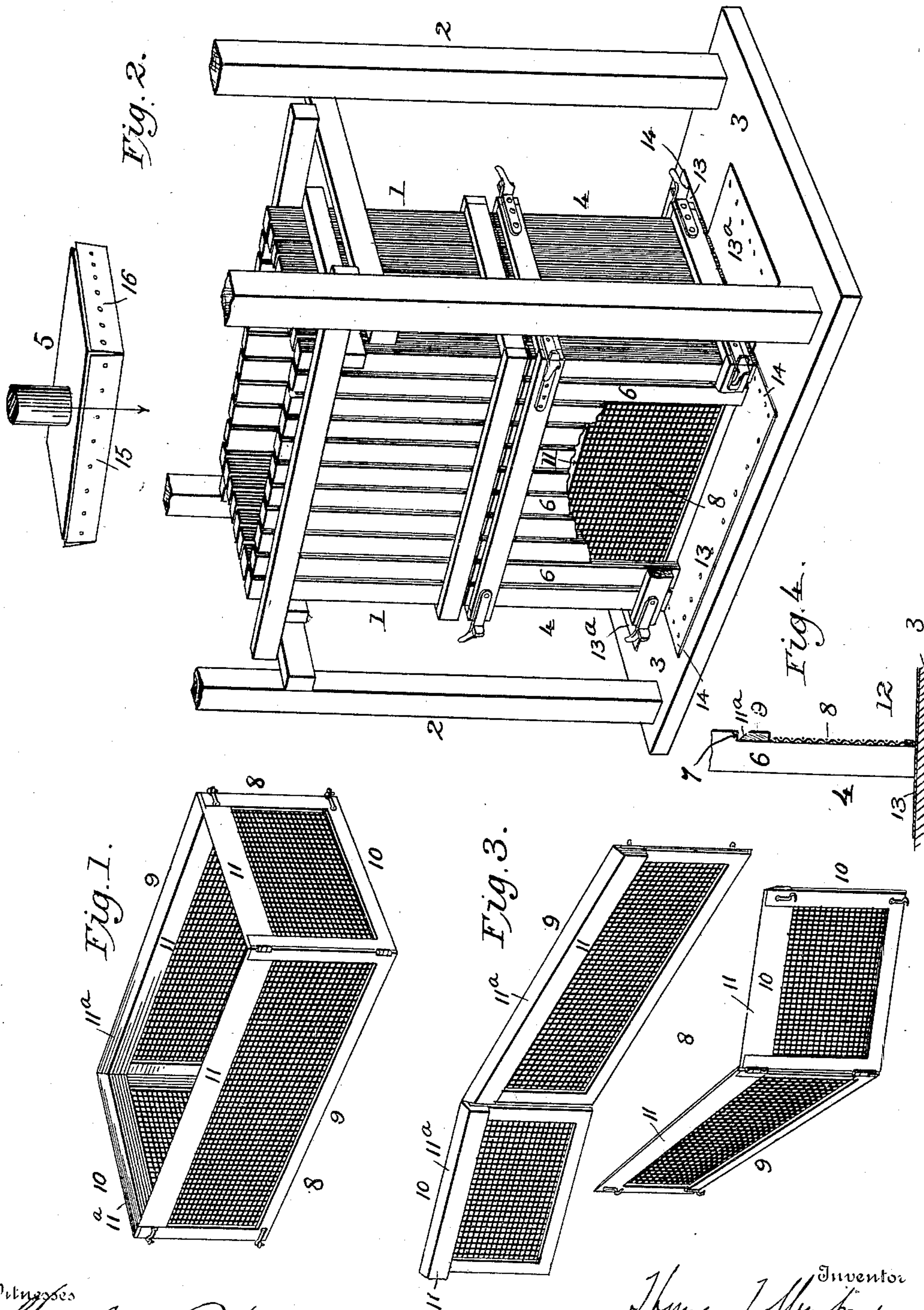
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T. T. MUNFORD.
MEANS FOR BALING COTTON.

(No Model.)

(Application filed Aug. 28, 1899.)



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS T. MUNFORD, OF LYNCHBURG, VIRGINIA.

MEANS FOR BALING COTTON.

SPECIFICATION forming part of Letters Patent No. 672,283, dated April 16, 1901.

Application filed August 28, 1899. Serial No. 728,743. (No model.)

To all whom it may concern:

Be it known that I, THOMAS T. MUNFORD, a citizen of the United States, residing at Lynchburg, in the county of Campbell and State of Virginia, have invented a new and useful Improvement in Means for Baling Cotton, of which the following is a specification, reference being had to the accompanying drawings and to the numerals of reference marked thereon.

My invention relates to improvements in the art of baling cotton and other fibrous material of a like nature, and particularly to means for packing such material in closed bale-coverings.

One of the chief objections to the use of metallic coverings is the existence of air in the lint-cotton, whereby it is rendered almost impossible to pack it in a closed covering, the accumulating air acting as an elastic cushion and preventing the necessary compression of the cotton.

The object of my invention is to overcome this difficulty and to provide means whereby cotton and other material of a like nature may be readily packed in a metallic or textile covering, and that without the use of bale-ties such as are commonly used.

The mechanism for carrying out my invention comprises a knockdown crib and a stationary crib supported thereover by posts, both of which are well known in the art. On the platform on which is erected the lower or knockdown crib I place a blank having sides or ends adapted to be bent to form the sides and ends, respectively, of the bale-covering. On this blank is located what I term a "reticulated" former, made of heavy wire or steel rods to resist the pressure of the cotton in the course of compression and at the same time allow an easy escape for the air, and around the reticulated former I set up the crib. The cotton is then fed into the upper crib or hopper and given a preliminary packing or stamping by the feet of helpers in the usual manner, after which the compressing-piston carrying the bale-covering top in an inverted position gives the cotton the final compression. The knockdown crib is then removed, as is also the reticulated former, after which the sides and ends of the blank are bent up and

the sides and ends of the top bent over the top of the bale-covering and secured.

In order to more fully explain the invention, reference is made to the accompanying drawings, in which—

Figure 1 is a perspective view of the reticulated former. Fig. 2 is a perspective view of the baling-cribs, one side of the lower crib being broken away to show the reticulated former in position. Fig. 3 shows the reticulated former separated. Fig. 4 is a view showing details of the knockdown crib and the separable reticulated former and, further, illustrating the positions occupied thereby with respect to the platform and the blank constituting the covering.

Similar numerals of reference indicate corresponding parts in the respective figures.

1 designates a hopper or crib, and 2 the supporting-posts therefor, resting on a platform 3, which also forms a support for the bale-covering blank. Located under the crib 1 is another crib 4 of the knockdown variety, and 5 is the compressing-plunger or piston. The parts thus far mentioned are, except in certain particulars specified hereinafter, of a type well known in the art of baling cotton.

The vertical slats 6 of the lower crib 4 are cut back to form shoulders to protect the upper edges of the reticulated former 8 located therein from being bent down or crushed by the compressing-plunger 5. This reticulated former is rectangular in shape, and its interior is the exact dimension of the compressed bale of cotton when ready to receive the covering. The reticulated former is formed with the sides 9 and ends 10 and made of heavy wire or steel rods, so as to resist the expansive force of the cotton when under compression, and yet permit the air in the cotton a ready escape, and has a binding-strip 11 at each of the four upper edges, the said strip being beveled at 11^a to allow free passage of the compressing-plunger should it strike against the upper edges of the former. Before the lower crib is set up a covering-blank is placed on the platform 3 and immediately under the mouth of the hopper 1. The blank forming the covering, exclusive of the top, comprises a bottom 12, side pieces 13, and end pieces 13^a, the side pieces 13 being of length

sufficiently greater than that of the bottom 12 to form the extensions or flaps 14, which are adapted to fold over the ends of the case or covering when set up. On this blank the
 5 reticulated former 8 is placed, its upper beveled edge 11^a fitting under the shoulders 7 of the lower crib. This provision having been made, the cotton is fed into the reticulated former through the hopper 1 and given a preliminary packing by the feet or otherwise in
 10 the usual manner.

The top of the bale-covering is inverted and placed over the piston, as shown in Fig. 2, the side and end flaps 15 and 16 serving to
 15 hold the top to the piston. The piston is then lowered and brought down upon the cotton and pressure is exerted until the piston and the attached top are at the mouth of the reticulated former or at a height from
 20 the top of the platform 3 equal to the thickness of the intended bale and maintained in that position until the lower crib and reticulated former have been removed, the pressure of the piston holding the cotton in the
 25 form of a compressed bale. The knockdown crib and reticulated former having been removed, the sides 13 and ends 13^a of the body-blank are bent against the sides and ends of the compressed mass of cotton and the extensions 14 riveted or otherwise secured to
 30 the ends of the covering. The side and end flaps of the top carried by the piston are then bent down and secured by rivets or in any suitable manner to the body of the bale-covering.
 35

Having thus described my invention, I claim—

1. In a compressing-machine, the combination of a knockdown crib, a separable reticu-

lated former, open top and bottom, located 40 therein, and means for compressing the fibrous substance in the former, substantially as set forth.

2. In a compressing-machine, the combination of a knockdown crib, a separable reticulated former, open top and bottom, located 45 therein, and a compressing-plunger carrying the bale-covering top, substantially as set forth.

3. In a compressing-machine, the combination of a knockdown crib, a separable reticulated former, open top and bottom, located 50 therein, a bale-covering support under the said crib and former, on which the bale is compressed, and a compressing-plunger carrying the bale-covering top, substantially as 55 set forth.

4. In a compressing-machine, the combination of a bale-covering support, a knockdown 60 crib located thereon, a reticulated former within the crib, said former being separable and open top and bottom, and means for compressing the cotton therein, substantially as set forth.

5. In a compressing-machine, the combination of a bale-covering support, a knockdown 65 crib located thereon, and having an internal shoulder, a separable reticulated former, open top and bottom, seated within the crib and under the shoulder, and means for 70 compressing the cotton within the former, substantially as set forth.

In testimony whereof I hereunto set my hand.

THOMAS T. MUNFORD.

Witnesses:

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 MARY O. TAYLOE.