

No. 707,679.

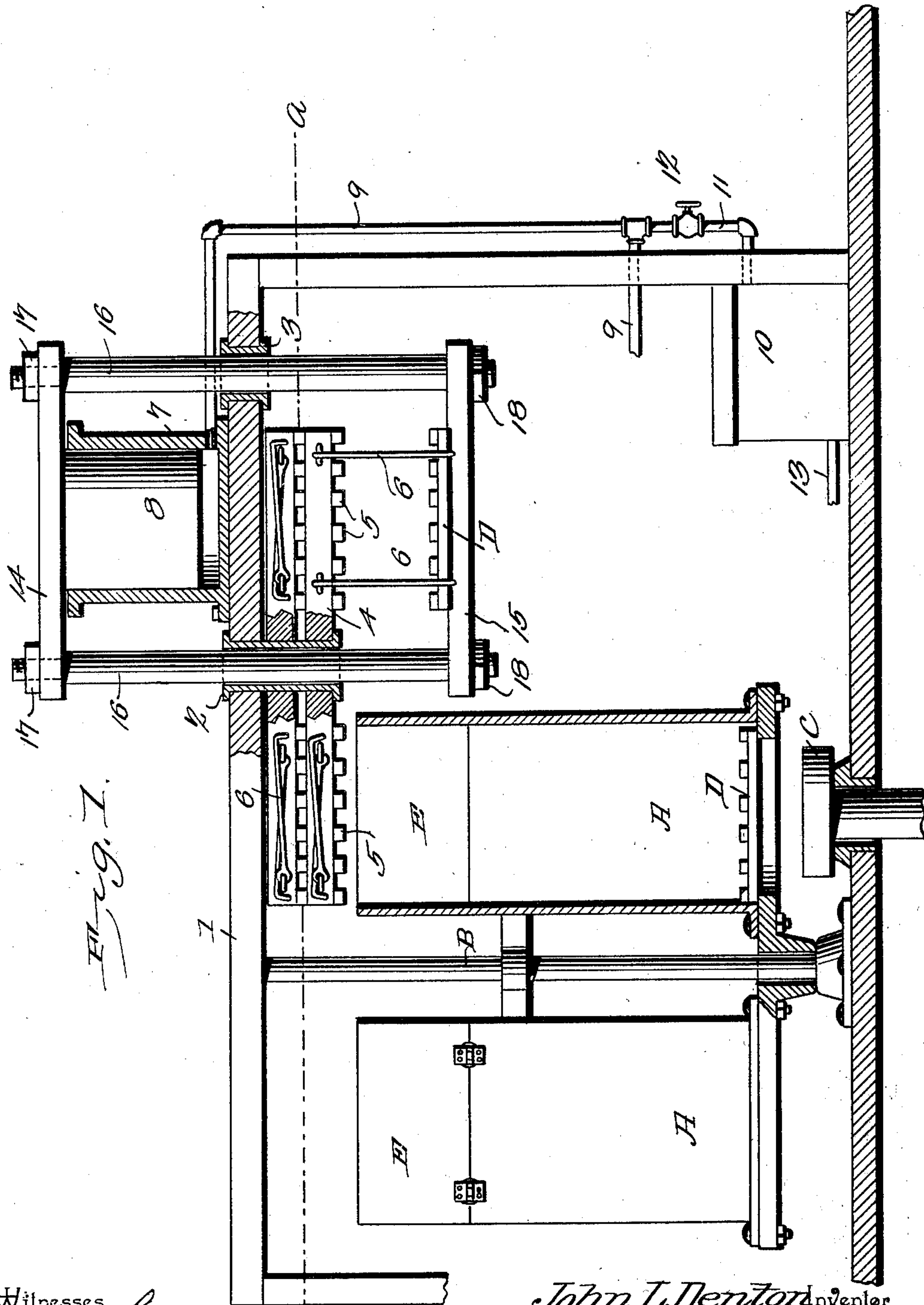
Patented Aug. 26, 1902.

J. L. DENTON.
COTTON COMPRESS.

(Application filed Mar. 17, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
E. J. Howard
J. W. Garner

by

John L. Denton inventor.
C. A. Snow & Co.
Attorneys

No. 707,679.

Patented Aug. 26, 1902.

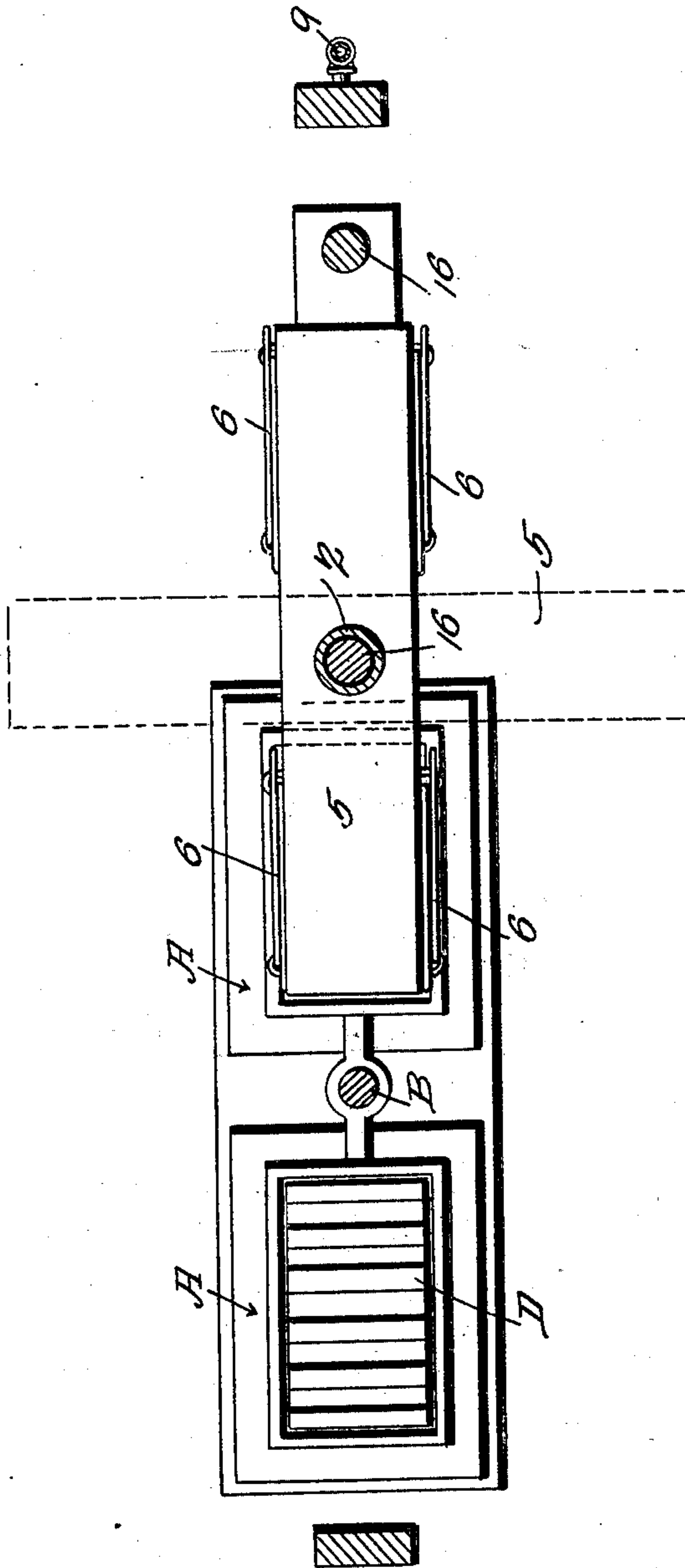
J. L. DENTON.
COTTON COMPRESS.

(Application filed Mar. 17, 1902.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 11.



Witnesses
J. W. Garner

John L. Denton, Inventor.
by *Chas. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN L. DENTON, OF WHITEWRIGHT, TEXAS, ASSIGNOR OF ONE-HALF TO
McMILLIN & LIVELY, OF WHITEWRIGHT, TEXAS, A FIRM.

COTTON-COMPRESS.

SPECIFICATION forming part of Letters Patent No. 707,679, dated August 26, 1902.

Application filed March 17, 1902. Serial No. 98,572. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. DENTON, a citizen of the United States, residing at White-
wright, in the county of Grayson and State of
5 Texas, have invented a new and useful Cotton-
Compress, of which the following is a specification.

My invention is an improved cotton-com-
press adapted to be used in connection with
10 a cotton-baling press for increasing the den-
sity and reducing the size of the bales formed
in the press; and it consists in the peculiar
construction and combination of devices here-
inafter fully set forth and claimed.

15 In the accompanying drawings, Figure 1 is
partly an elevation and partly a vertical sec-
tional view of a cotton-compress embodying
my improvements, showing the same arranged
for operation in connection with a cotton-
20 press having a plurality of revoluble press-
boxes. Fig. 2 is a sectional view taken on a
plane indicated by the line *a a* of Fig. 1.

The cotton-baling press here shown in-
cludes a pair of press-boxes A, mounted for
25 revolution on a post B, so that they may be
successively disposed over a plunger C, which
may be operated by any suitable mechanism
and caused to move upwardly through each
of the press-boxes in succession to form bales
30 therein. In practice one of the press-boxes
will be supplied with cotton directly from the
gins while a bale is being formed in the other
press-box, so that the gins may be kept con-
tinuously or practically continuously in op-
35 eration. Each of the movable press-boxes is
provided with a follower D, which is remov-
able therefrom from the upper end of the
press-box, and each of the press-boxes is fur-
ther provided at its upper end with hinged or
40 removable doors E, which when disposed as
shown in the drawings form vertical upper ex-
tensions of the press-boxes.

The upper end of the post B, which forms
the pivot for the revoluble press-boxes, is
45 here shown as secured to the under side of an
elevated supporting-beam 1. The same may
in practice be a frame of any suitable con-
struction, and I do not limit myself in this
particular. The said supporting-beam 1,
50 which is hereinafter referred to in this speci-
fication as a support, is provided with guides

2 3, both of which are here shown as cylin-
drical. The guide 2 extends downwardly
from the support 1 to a suitable distance and
forms the support for a beam 4, which in prac- 55
tice may be a suitable frame and is adapted
to revolve on a guide 2 and is of such length
that its ends may be successively disposed
over the press-box A, which is above the plun-
ger B. The said beam 4 is here shown as pro- 60
vided on its under side at its ends with coun-
ter-followers 5, which may be successively
disposed above the press-box in which a bale
is being or has been formed, as will be under-
stood. In practice I propose to employ a pair 65
of the said beams 4, which may be either dis-
posed in line with each other or at right an-
gles to each other, as shown in dotted lines
in Fig. 2. Each of the said beams 4 is pro-
vided at its ends with suitable means, here 70
shown as hooks 6, for engaging the removable
followers D.

On the upper side of the support 1, at a
point midway between the guides 2 3, is se- 75
cured the cylinder 7 of a fluid-pressure mech-
anism, the ram or piston 8 of which fluid-
pressure mechanism is operative in the said
cylinder. The latter has its lower portion
connected by a pipe 9 to a suitable pump or 80
other suitable mechanism (not here shown)
for forcing water, oil, or other suitable fluids
under pressure into the lower end of the cyl-
inder 7, and thereby apply fluid-pressure to
the piston 8, which is the movable element 85
of the fluid-pressure mechanism, and raise
the said piston, as will be understood. A
suitable tank 10 is connected to the pipe 9 by
a drain-pipe 11, in which is a valve 12, and
the said tank is also connected by a pipe 13
to the pump or other means hereinbefore re- 90
ferred to for forcing fluid under pressure to
the cylinder of the fluid-pressure mechanism.

On the upper end of the piston 8 is disposed
the upper cross-beam 14 of a vertically-mov- 95
able frame, which is actuated by the fluid-
pressure mechanism to compress the bales of
cotton after the same have been formed by
the cotton-press. The lower beam 15 of the
said vertically-movable frame is connected
to the upper beam 14 by means of guide-bars 100
16, which are vertically disposed and parallel
with each other and operate axially in and

are guided by the guides 2 3. The said bars 16 are here shown as of cylindrical form; but this may be varied without departing from the spirit of my invention, and said guide-
 5 bars are here shown as having screw-threaded extremities which pass through openings in the beams 14 15 and are provided with nuts 17 18 to secure them, respectively, to the beams 14 15.

10 A bale is initially formed in one of the press-boxes between the removable follower D and the counter-follower 5 above said press-box by the operation of the plunger C. The doors E are then opened, the hooks 6 engaged
 15 with the removable follower D, and the beam 4 is then revolved on the combined guide and pivot 2 to dispose the said removable follower with the bale thereon over the lower beam 15 of the vertically-movable frame. Fluid-pres-
 20 sure is then by the operation of the pump applied to the interior of the cylinder 7 and the lower end of the ram or piston 8, and hence the latter is caused to move the frame upwardly, thereby compressing the bale, increasing its
 25 density, and reducing it to the required size for shipment. The operation of the pump is then pretermitted and the valve 12 opened to allow the fluid to flow back from the cyl-
 30 nder 7 into the tank 10. The latter is also the reservoir from which the pump draws its supply, so that the same liquid is used over and over again. It will be understood that when my improved compress is thus used in con-
 35 nection with a cotton-press having a plurality of movable press-boxes the gins may be operated continuously, filling one of the press-boxes while a bale is formed in the other and removed therefrom to the compress. Under
 40 normal conditions the compress may be operated to compress a bale while another is being formed in one of the press-boxes. In the event, however, that any delay is experienced in compressing a bale or in banding or tying the same the upper beam 4 may be used, be-
 45 ing first disposed at right angles to the lower beam, as shown in dotted lines in Fig. 2; hence enabling the bales to be removed from the press as rapidly as they are formed and suspended and held by the beams 4 prepara-
 50 tory to being compressed. The fluid-pressure mechanism being disposed midway between the guide-bars of the movable compressing-frame and directly in line with the line of force, stress is applied equally to both sides

of the compressing-frame, and hence there is 55 no tendency to rack or cant the same when in operation. The parallel disposition of the guide-bars 16 and the guides 2 3, in which they operate, facilitates the operation of the com-
 60 pressing-frame. Furthermore, the cylinder 7 being fixed on the support 1 and the piston or ram 8 being connected directly to the upper beam 14 of the compressing-frame, said cylinder and ram also serve to counteract any
 65 tendency of the compressing-frame to become canted or inclined in either direction.

Having thus described my invention, I claim—

1. In combination with a press, including a movable press-box, a fixed support having 70 guides, a movable compressing-frame having parallel guide-bars operating in said guides, a fluid-pressure mechanism disposed between said guides on said support and connected to an element of the movable frame at a point 75 intermediate the guide-bars thereof, and a revoluble element mounted on one of the guides to carry a bale from the press to the compressing-frame, for the purpose set forth, substantially as described. 80

2. In combination with a press, including a movable press-box, a fixed support having guides, a movable compressing-frame having parallel guide-bars operating in said guides, a fluid-pressure mechanism disposed between 85 said guides on said support and connected to an element of the movable frame at a point intermediate the guide-bars thereof and a plurality of revoluble elements independently mounted for revolution on one of the guides, 90 for the purpose set forth, substantially as described.

3. In combination with a press, including a movable press-box, a fixed support having a guide, a movable compressing-frame hav- 95 ing an element to travel in said guide, means to operate said compressing-frame, and a revoluble element mounted on the guide to carry a bale from the press to the compressing-frame, substantially as described. 100

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN L. DENTON.

Witnesses:

EMMET PENN,

B. M. MONTGOMERY.