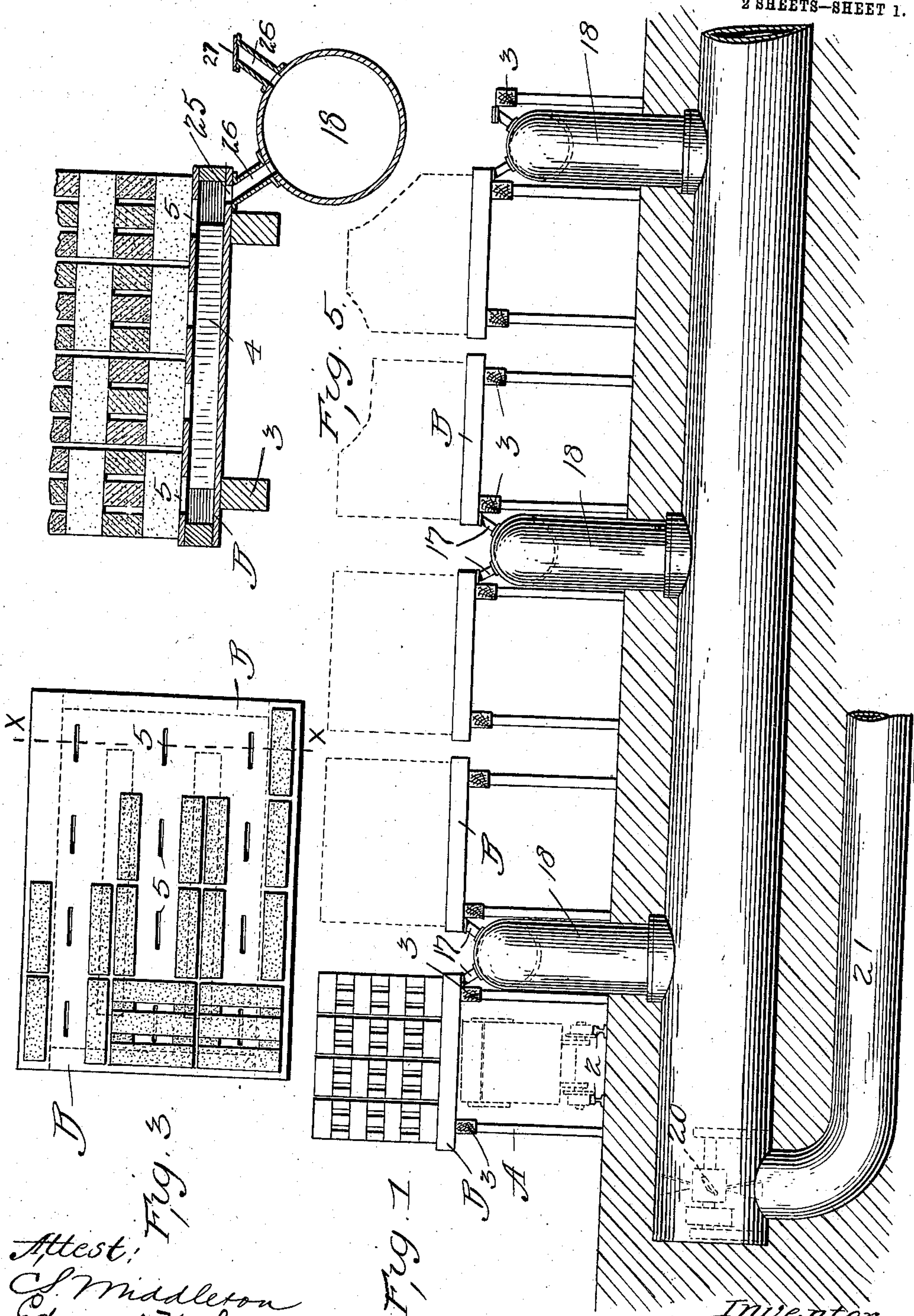


No. 867,872.

PATENTED OCT. 8, 1907.

J. C. BOSS.  
APPARATUS FOR DRYING BRICKS.  
APPLICATION FILED SEPT. 28, 1906.

2 SHEETS—SHEET 1.



Attest:  
C. S. Middleton  
Edward N. Sartor

Fig. 1  
Inventor  
John C. Boss.  
by C. S. Middleton, Donaldson & Spear Attys

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**J. C. BOSS.**

# APPARATUS FOR DRYING BRICKS.

APPLICATION FILED SEPT. 28, 1906.

2 SHEETS—SHEET 2.



Attest:

C. S. Middleton  
Edward N. Sutton

Inventor.  
John C. Bass.

By: Spear, Middleton Donaldson & Spear  
Attys



# UNITED STATES PATENT OFFICE.

JOHN C. BOSS, OF ELKHART, INDIANA.

## APPARATUS FOR DRYING BRICKS.

No. 867,872.

Specification of Letters Patent.

Patented Oct. 8, 1907.

Application filed September 28, 1906. Serial No. 336,621.

*To all whom it may concern:*

Be it known that I, JOHN C. BOSS, a citizen of the United States, residing at Elkhart, Indiana, have invented certain new and useful Improvements in Apparatus for Drying Bricks, of which the following is a specification.

My invention relates to means for drying bricks, preparatory to burning, and is intended to simplify the apparatus, to reduce its cost, to facilitate the handling of the bricks, and to utilize the cooling draft from the kiln.

The apparatus embodying my said invention is illustrated in the accompanying drawings in which:

Figure 1 is a front view. Fig. 2 is a side view. Fig. 3 is a plan view of the pallet. Fig. 4 is a section of pallet on line X—X Fig. 3. Figs. 5 and 6 are detail views of means for connecting the pallets with the air supply, Fig. 5 being a modification.

In these drawings, a pair of stringers 3 is supported by a row of posts indicated at A, standing in pairs, the pairs being of any desired length and number. These pairs of posts are placed with a clear space between them, and are wide enough at the top to receive and support the brick pallets B with the ends of the said pallets resting on the stringers. At the bottom of the space between said pairs is a track 2, 2, on which runs the truck provided to carry the pallets. Said truck is high enough to support the pallet above the stringers so that it will clear the top thereof, and move clear, with the ends on each side extending over the posts or their stringers 3. The pallets are fitted to carry any desired number of bricks (preferably five hundred) piled thereon loosely, so as to permit the air to pass therethrough. The pallet has perforations 5 in its top, preferably in the form of slots, for the passage of the air upward into the mass of bricks resting on the pallet. As shown, it is provided with an air chamber 4.

The space between the pairs of posts is open at both ends so that the trucks can be run from either side for the introduction of the pallets containing the green bricks at one end, or to remove those containing the dried bricks at the other end.

The trucks are adapted to receive the pallets, which rest when in place on said trucks on knuckles, operated by levers, which knuckles well known in the art, are adapted to hold the pallet high enough above the tracks so that its ends, laterally extended, over the stringers pass clear of them, and when the pallet is accurately in place, it may be lowered by manipulation of knuckles, and rest in its place upon the support.

For the purpose of making connection with the supply pipe, the receiver end of the air-chamber has a plain face, 9, with an orifice 10 therein, this face being preferably covered with some elastic substance, such as rubber. When the pallet is in place, this face regis-

ters with a corresponding and like face 11 of the discharge pipe 17 of the air supply, and the two faces form a practically air-tight joint, the parts being so arranged that when the pallet settles on its seat, these faces are pressed firmly together.

The pipe of the air supply is provided with an automatic valve, 12, seated in a diaphragm, 13, underneath the air chamber 14, which connects with the pallet chamber through the orifice, in the padded faces. This valve has an outwardly projecting stem and is automatically closed by a spring, 15, but is opened by the pressure of the pallet when the latter is lowered into place.

The discharge pipe of the air supply is connected with a trunk, 18, arranged between pairs of the pallet supporting stages, so that the same trunk may supply two rows. These trucks may be connected with any source of supply of air for drying the bricks. I have shown, however, an arrangement of pipes by means of which the air which is used to cool the kilns and which is heated by passage therethrough, may be utilized with better effect to dry the green bricks. This arrangement is shown in Fig. 1 in which the trunk is connected with the discharge side of the exhaust fan, which draws the air through the pipe, 21, from the hot kiln and discharges it through the trunk to the pallet.

The apparatus may be used in as many multiples of that shown as desired. The same or the same kind of trucks run the green bricks in at one end and lodge them in place and remove them from the other. The air blast always on, is put into the chambers in the pallets and forced up through the discharge openings into the mass of bricks loosely piled thereon. When these are sufficiently dried, the trucks run in at the other end of the track, lift the pallets and remove them to the kiln. Other means than this shown may be used to effect the passage of the drying current from the trunk through the pallet, to the bricks thereon.

In Fig. 5 I have shown another and simple manner of connecting the pallet with the air supply. In this figure the overhanging of the pallet chamber has an orifice 25 facing downward and is adapted, when the pallet is lowered into place, to contact with the open mouth of a branch pipe, 26, from the air supply. This pipe may be provided with any suitable plug or cover 27 to close it when the pallet is not in place.

I claim:

1. In a brick drying apparatus a trunk for conveying the air-supply, a series of pallets for supporting the bricks, said pallets having openings for the passage of air to the bricks placed thereon, supports for the pallets arranged to permit the ends of the pallets to project over said supports, and means for detachably connecting said projecting ends of the pallets with the air trunk, substantially as described.

2. In a brick drying apparatus, a pallet having an air

- chamber provided with discharge openings and an inlet opening on its under side, a support for the pallet, an air supply apparatus having a port engaging with the inlet opening when the pallet is on its support and means for
- 5 raising the pallet off its support.
3. In a brick drying apparatus, a pallet having an air chamber with discharge openings, supports adapted to receive the ends of the pallet, a track for the pallet conveying truck between the pallet supports, an air supply
- 10 pipe by the side of the support, and detachable connections between the air supply and the pallet chamber, substantially as described.
4. In a brick drying apparatus, a pallet having an air

chamber with discharge openings, supports adapted to receive the ends of the pallet, a track for the pallet conveying truck between the pallet supports, an air supply pipe by the side of the support, and detachable connections between the air supply and the pallet chamber, and an automatic valve in said connections, substantially as described. 15

In testimony whereof, I affix my signature in presence of two witnesses. 20

JOHN C. BOSS.

Witnesses:

HENRY E. COOPER,  
C. S. MIDDLETON.