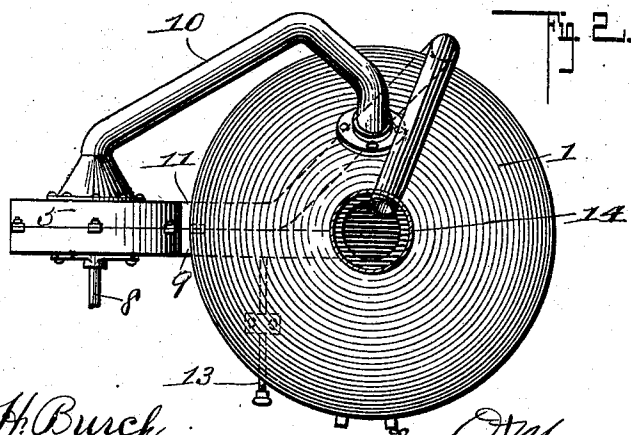
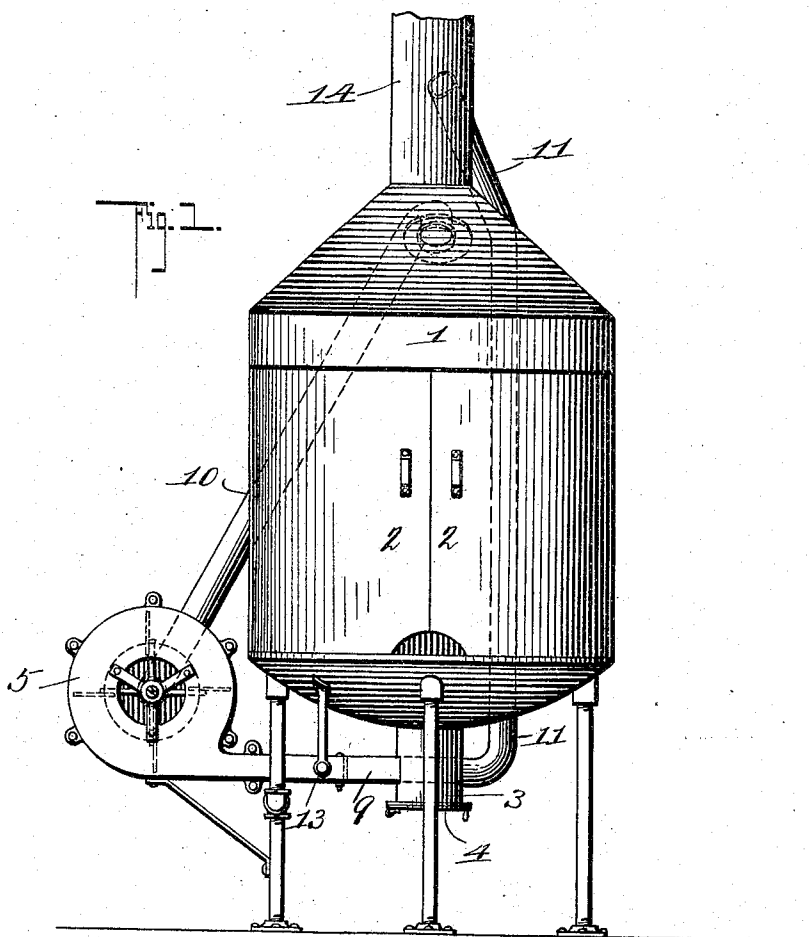


J. PHILIPSKI.
FORGE.
APPLICATION FILED FEB. 6, 1909.

937,265.

Patented Oct. 19, 1909.

2 SHEETS—SHEET 1.



Witnesses

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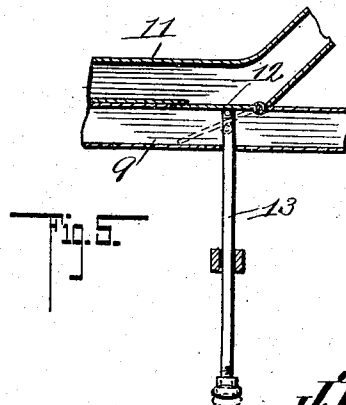
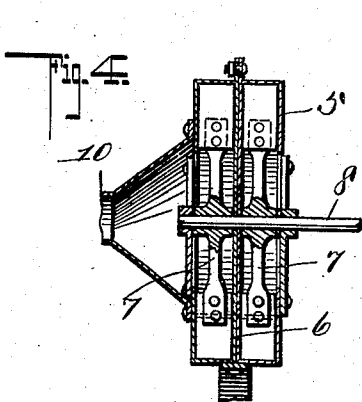
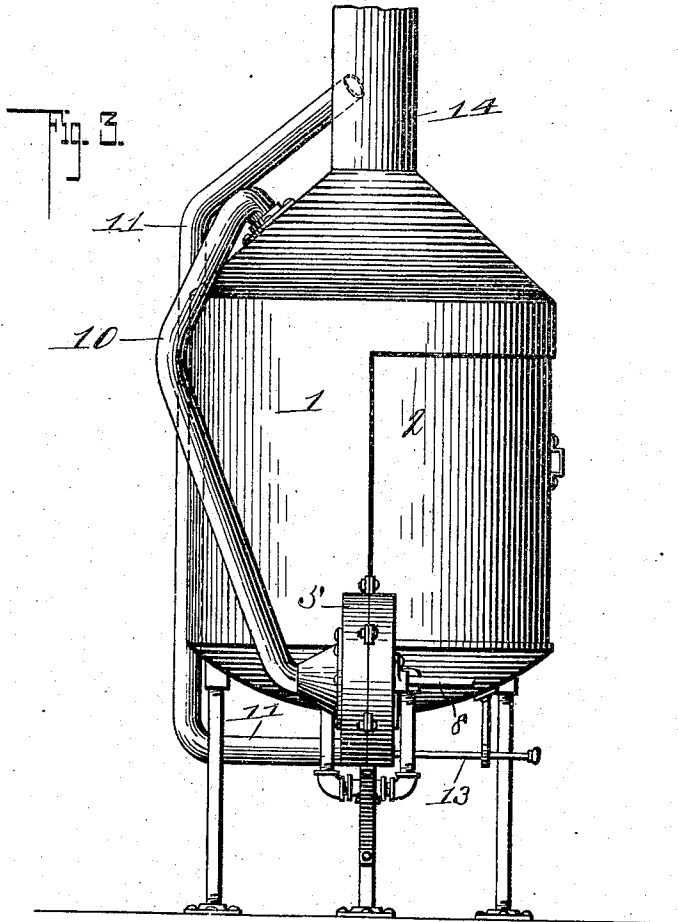
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UNITED STATES PATENT OFFICE.

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FORGE.

937,265.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed February 6, 1909. Serial No. 476,453.

To all whom it may concern:

Be it known that I, JOHN PHILIPSKI, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Forges, of which the following is a specification.

This invention relates to a forge furnace, and the object of the invention is to eliminate the smoke nuisance now present with furnaces of this kind, thereby preventing the same from filling the shop in which the forge is located.

The invention consists of the novel features of construction hereinafter described, pointed out in the claims and shown in the accompanying drawings, in which:

Figure 1 is a front elevation of a furnace with my invention applied thereto. Fig. 2 is a plan view, the smoke pipe being shown in section: Fig. 3 is a side elevation: Fig. 4 is a central vertical section through the blower. Fig. 5 is a detailed sectional view of certain communicating pipes and a swinging valve.

In these drawings, 1 represents a furnace provided with sliding doors 2 and a depending extension 3 closed at the bottom by a door 4 to prevent ashes from dropping from the furnace. The blower consists of a fan casing 5 divided by a partition 6 in two separate non-communicating compartments in which are arranged fans 7. These fans are mounted upon a shaft 8 which shaft is driven in any suitable manner. Leading from one of these compartments, which compartment has suitable side openings for admittance of air is an air pipe 9 which discharges into the furnace through the extension 3.

Leading from the upper top portion of the furnace is a pipe 10 which discharges smoke from the combustion chamber of the furnace in the other compartment of the blower, and from this last mentioned compartment a pipe 11 leads to a smoke stack 14, the said pipe being parallel through a portion of its length with the pipe 9. The pipes 9 and 11 are adapted to communicate with each other through the suitable opening, such communication being controlled by a swinging valve 12 operated by a valve rod 13. The valve 12 is so hinged that when opened to give communication between pipes

9 and 11 it will rest diagonally across pipe 9 and will cut off communication between the air side of the blower from which the pipe 9 leads and the furnace. It will be noted therefore that when valve 12 is open the blower will supply air to the pipe 11 thus increasing the draft of smoke through the pipe 10 and the smoke side of the blower, the smoke passing from the blower to the stack through pipe 11. By thus creating a strong draft from the upper part of the furnace the same will be kept clear of smoke, thus preventing its escaping from the furnace into the shop, when the doors are open. The advantages of this construction will be obvious to those using forges of this kind.

What I claim is:—

1. The combination with a furnace and a smoke stack of a double blower, an air pipe leading from the blower to the furnace, a pipe leading from the upper portion of the furnace to the blower, a pipe leading from the blower to the smoke stack, and a swinging valve adapted to cut off communication through the air pipe between the furnace and blower and place said air pipe into communication with the pipe leading to the smoke stack.

2. The combination with a forge furnace and a smoke stack, of a double blower divided into separate compartments, an air pipe leading from one compartment to the lower portion of the furnace, a pipe leading from the other compartment to the smoke stack, said pipes having valve controlled communication with each other, and a pipe leading from the top of the furnace to the last mentioned compartment.

3. The combination with a furnace and a smoke stack, of a blower divided into non-communicating compartments, means for conveying smoke from the furnace to one of said compartments, a pipe leading from said compartment to the smoke stack, an air pipe leading from the other compartment and communicating with the second mentioned pipe, and a swinging valve controlling such communication.

JOHN PHILIPSKI.

Witnesses:

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