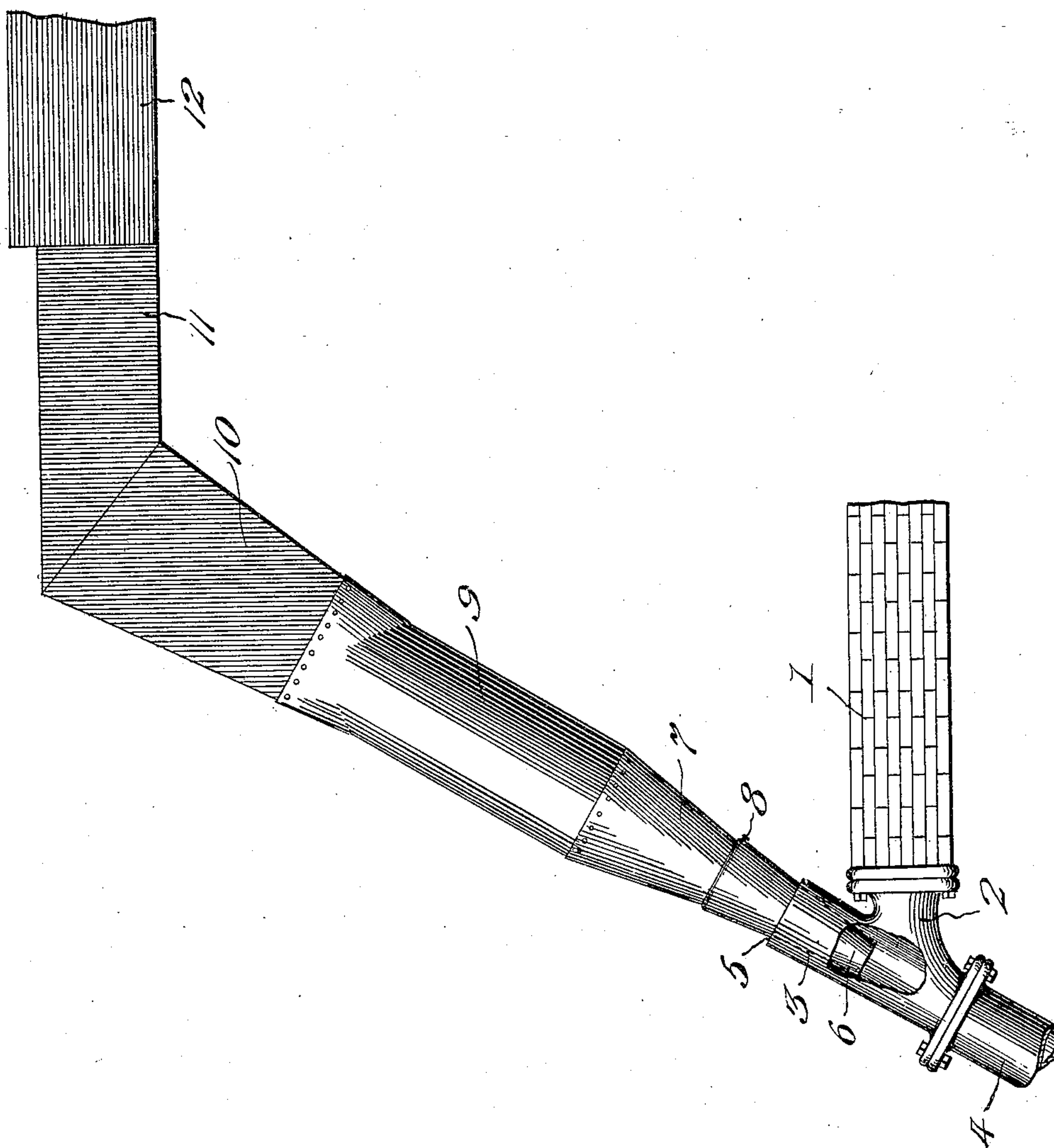


No. 862,005.

PATENTED JULY 30, 1907.

P. McDERMOTT.  
SMOKE CONDENSER.  
APPLICATION FILED SEPT. 6, 1906.



Witnesses:

J. A. Swanson  
Walter McDonald

Inventor:

Petruck McDermott

# UNITED STATES PATENT OFFICE.

PATRICK McDERMOTT, OF POTOMAC, MONTANA.

## SMOKE-CONDENSER.

No. 862,005.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed September 5, 1906. Serial No. 333,397.

*To all whom it may concern:*

Be it known that I, PATRICK McDERMOTT, a citizen of the United States of America, and a resident of Potomac, in the county of Missoula and State of Montana, have invented certain new and useful Improvements in Smoke-Condensers, of which the following is a specification.

This invention relates to smoke condensers, and one of the principal objects of the same is to provide means for increasing the draft and carrying away the smoke from the furnace of a smelter or other plant where it is desired to get rid of the smoke and keep it out of the air.

Another object of the invention is to provide a condenser attached to the outlet of a smoke duct or flue consisting of a water pipe disposed at an angle to the outlet so as to convey the smoke by a stream of water from the outlet to the ground.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which the figure is a side elevation of a smoke condenser made in accordance with my invention.

Referring to the drawing for a more particular description of my invention, the numeral 1 designates a smoke duct or flue, and secured to its outlet end is a three-way tubular connection 2 provided with an inclined member 3 to which is connected a discharge pipe 4 at its lower end, while its upper end 5 is open to receive a conical water discharge nozzle 6. The nozzle 6 is connected to a tapering pipe section 7 by means of a set screw 8, said pipe section 7 being connected to a pipe 9, the upper end of which is attached to a wooden elbow member 10, the upper portion 11 of which may be open at the upper side and connected at its upper end to a trough 12 to which water is supplied from any suitable source.

The operation of my invention may be described as follows: Water from the trough 12 flows through the elbow 10, 11, into the pipe 9, and through said pipe to the tapering member 7 and through the nozzle 6, and as the smoke emerges from the outlet in the flue 1, the water intersecting the smoke will carry it out through the discharge pipe 4 and onto the ground. Owing to the force of water the draft of the flue 1 is increased, and the smoke is condensed and carried to the ground, thus preventing the same from filling the air around the plant.

From the foregoing it will be obvious that a smoke condenser made in accordance with my invention is of simple construction, can be quickly connected to the smoke duct of a smelter or similar plant, and will operate efficiently to prevent smoke from rising and at the same time increase the draft of the furnace.

Having thus described the invention, what I claim is:

1. A smoke condenser comprising a three-way connection attached to the smoke outlet of a flue or smoke duct and provided with an inclined member extending at an angle to the smoke outlet, a nozzle inserted in said inclined member and connected to a water pipe, a trough connected to the upper end of said pipe, and a discharge pipe connected to the lower end of said three-way connection, substantially as described.

2. A smoke condenser comprising a three-way connection attached to the outlet end of a smoke flue, a discharge pipe connected to one end of said connection, a water discharge nozzle connected to the opposite end of said connection, and the outlet end of said nozzle being disposed in line with the smoke outlet, and means for discharging water through said nozzle, substantially as described.

PATRICK McDERMOTT.

Witnesses:

J. A. SWANSON,  
WALTER McDONALD.