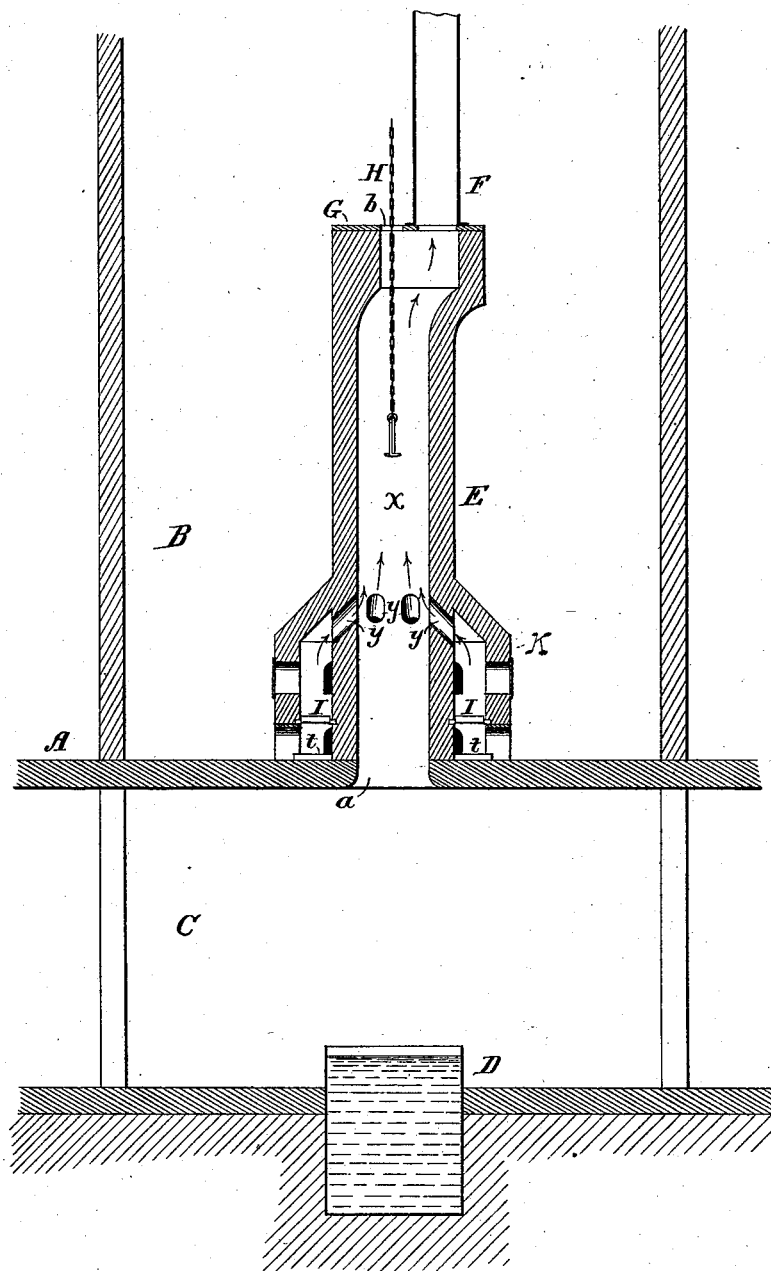


(No Model.)

N. McMILLAN.  
SINGEING APPARATUS.

No. 260,309.

Patented June 27, 1882.



Attest:  
Courtney & Cooper  
A. B. Sanborn.

N. McMillan  
By his attorney  
Charles E. Foster

# UNITED STATES PATENT OFFICE.

NEIL McMILLAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO H. DENNY & SONS,  
OF SAME PLACE.

## SINGEING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 260,309, dated June 27, 1882.

Application filed March 31, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, NEIL McMILLAN, a subject of the Queen of Great Britain and Ireland, and a resident of Chicago, Cook county, Illinois, have invented certain Improvements in Singeing Apparatus, of which the following is a specification.

My invention has for its object to thoroughly and effectually singe the hair and bristles of hogs with less manipulation, at less cost, and with greater convenience to the workman than when ordinary appliances are employed, and for this purpose I use an apparatus illustrated in the drawing and hereinafter described.

In forms of furnace in ordinary use where the singeing-room is below the furnace-floor the workmen are put to great inconvenience from the falling of hot ashes and from the heat of the fire above. The fire risk is also considerable, and the constant escape of fine ashes is liable to injure the lard. These defects are overcome by the construction shown in the drawing, in which—

A is the floor of the furnace-room B and the roof of the singeing-room C, and directly below an opening, *a*, in said floor, upon or below the floor of the singeing-room, is a water-tank, D. The hole *a* communicates with the interior of a singeing-stack, E, of brick-work, the flue *x* of which is bent laterally near the top, so that the chimney F is at one side the central line of the stack, a flat metal cap, G, which supports the chimney F, having an opening, *b*, coincident with the center of the flue, through which opening passes the chain H, by which the hogs are elevated.

Around the base of the stack E, concentric with the stack, is built the furnace K, the flues *y* of the furnace communicating radially with the flue *x*. The floor A is of concrete or other non-conductor of heat, and the furnaces are provided with grates I and ash-pits between the latter and the floor. A water-tray, *t*, on the ash-pit, receives and cools the cinders and ashes falling therein, and the evaporation of the water facilitates combustion of the fuel upon the grate. The products of combustion from the furnace pass through the flues *y* into the flue *x*, where they will rapidly and effectually singe the hog suspended therein, the carcass, as soon as the singeing is com-

pleted, being let down into the water-tank D, after which another is raised into the flue.

While there is an unobstructed passage from the chamber C to the flue *x*, there is no opportunity for the passage of coals or ashes into the chamber, and the concrete floor A, between the ash-pits and the chamber, effectually cuts off the radiation of heat from the fires, enabling the workmen to operate with comfort.

As few sparks can find their way to the singeing-room, and as the tank D will receive any that may escape in the flue *x* and fall, there is no danger of fire, and the singeing apparatus may be arranged at the most convenient point in the building instead of being placed in an out-house, as heretofore, while the convenient arrangement and facility of manipulation insures greater speed in the operation of singeing.

As the grates I are arranged above the floor A, the fires may be dumped at night and quenched, thus saving the unconsumed fuel and avoiding the loss which would result from burning out the fires, as is necessary in furnaces of the ordinary construction.

I do not limit myself to the precise construction and arrangement of parts shown, as they may be varied to some extent; but

I claim—

1. The combination, with the stack and surrounding furnace, of a floor of non-conducting material arranged below and supporting the furnace, and having an opening, *a*, and a singeing-room below the furnace, all as specified.

2. The combination of the shaft communicating with the chamber C of the surrounding furnace and tank arranged in the chamber C below the shaft, as set forth.

3. The combination of the shaft E and the chimney F, communicating with the shaft at one side of the center and central opening, *b*, in the cap of the shaft, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NEIL McMILLAN.

Witnesses:

JOS. S. SMITHSON,  
CHAS. H. BARSTOW.