2. Sheets
Sheet 1.

W. Adamson

Treating Offal

No. 46,318. Patented Feb. 14, 1865.

Fig. 1.

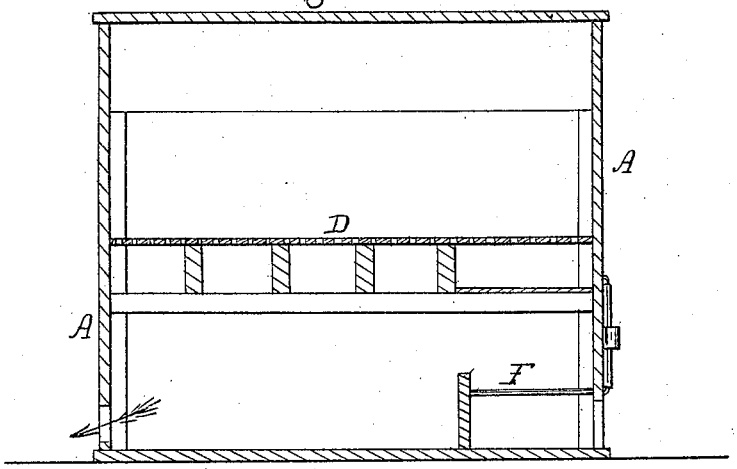
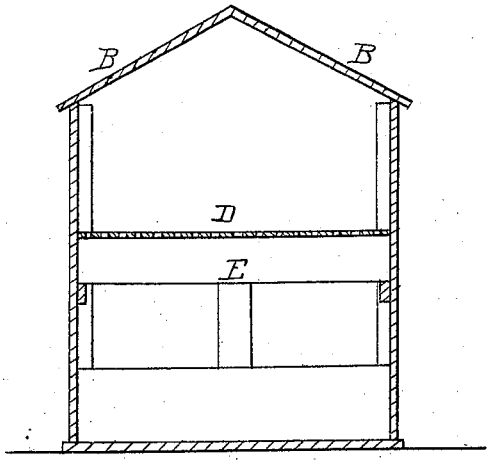


Fig. 2.



Witnesses:
Charles E. Foster
M. R. Delany.

Inventor:
Wm. Adamson
By his Atty
Geo. Howson

2 Sheets
Sheet 2.

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Fig. 3.

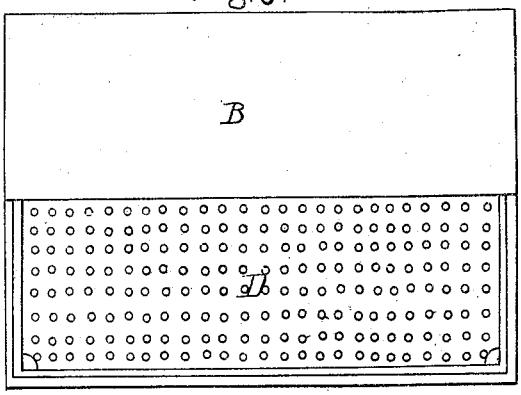
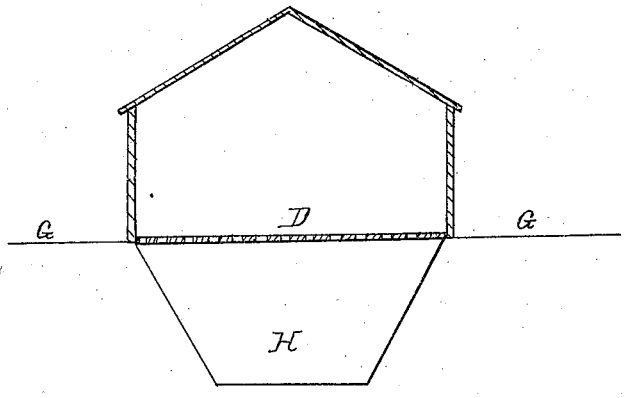


Fig. 4.



Witnesses:

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Inventor:

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Henry Howson.

UNITED STATES PATENT OFFICE.

WILLIAM ADAMSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED METHOD OF TREATING OFFAL.

Specification forming part of Letters Patent No. **46,318**, dated February 14, 1865.

To all whom it may concern:

Be it known that I, WILLIAM ADAMSON, of Philadelphia, Pennsylvania, have invented an Improved Treatment of Offal; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in utilizing offal by draining, drying, and disinfecting it, substantially in the manner described hereinafter.

In order to enable others to practice my invention, I will now proceed to describe the manner of carrying it into effect.

In Chicago, and other cities of the west, where vast quantities of hogs and other cattle are slaughtered, the proper disposal of the offal has been a subject of much consideration. It has hitherto been the practice to throw the offal into the rivers and creeks, to the annoyance of those living in the neighborhood, and to the detriment of the public health. Recently attempts have been made to utilize this offal by converting it into a fertilizer, the offal being placed in heaps on the ground and permitted to ferment, after which it was spread out and allowed to dry. This plan proved to be impracticable owing to the noxious exhalations from the offal during the fermenting and drying processes.

By my invention the offal is converted into valuable manure, and the above nuisance obviated.

Figure 1 represents a vertical section of a building for drying and disinfecting offal and converting it into manure; Fig. 2, a transverse section; Fig. 3, a plan view, and Fig. 4 a modified form of building.

The building A may be either of brick, wood, or other suitable material, should be about twice as long as it is broad, and should have the usual inclined roof, B, part of which is detachable for the introduction of the offal, which is deposited on a floor or platform, D, consisting of perforated plates, wire-netting, or suitable grating, supported by appropriate joists, E. Beneath this floor and at one end of the building is a fire place, F, for receiving the fuel, by means of which the process is in part effected.

Another and more economical mode of constructing the building is that illustrated in Fig. 4, where G represents the surface of the ground, and H a trench with inclined sides, which may be simply paved or cemented, or even the bare ground will in some cases suffice. The grated floor or perforated platform D is in this instance on a level with the surface of the ground, and is covered by a low building, I, the roof of which, or a portion of it, is detachable.

Having deposited on the grating or floor a layer of straw, or stubble, or twigs, or branches of trees, I place on the latter a mass of offal from the slaughter-houses, &c. The roof is then closed in and the offal left to drain for a few hours. A fire is then kindled in the fire-place F and the products of combustion permitted to pervade the whole space beneath the grated floor D. The first effect of the heat will be to warm the mass of offal and to set free therefrom a large quantity of water, for I have discovered that when as much water as possible has been drawn off without the application of heat the latter will cause a further drainage. The fire is continued and the products of combustion permitted to pass through the mass, which finally becomes dry, disinfected, and ready for removal. It is then treated according to any of the usual processes for making phosphates or animal manure. While the fire is burning I from time to time throw onto it spent tan, grapevine twigs, or any other matter containing tannin, the fumes and smoke from which have rapid and certain disinfecting properties.

By the above-described process all offal hitherto discarded and heretofore deemed a nuisance and matter difficult to dispose of can be converted into a manure at a very trifling cost compared with its value as a fertilizer.

It will be evident that the buildings for carrying out my process may be varied as regards form and construction without departing from the main feature of my invention. The fire-place, for instance, may be at

a distance and the products of combustion conveyed along suitable passages to the space beneath the grated floor.

I claim as my invention and desire to secure by Letters Patent—

Utilizing offal by draining, drying, and disinfecting it, substantially in the manner described.

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

WM. ADAMSON.

Witnesses:
HENRY HOWSON,
JOHN WHITE.