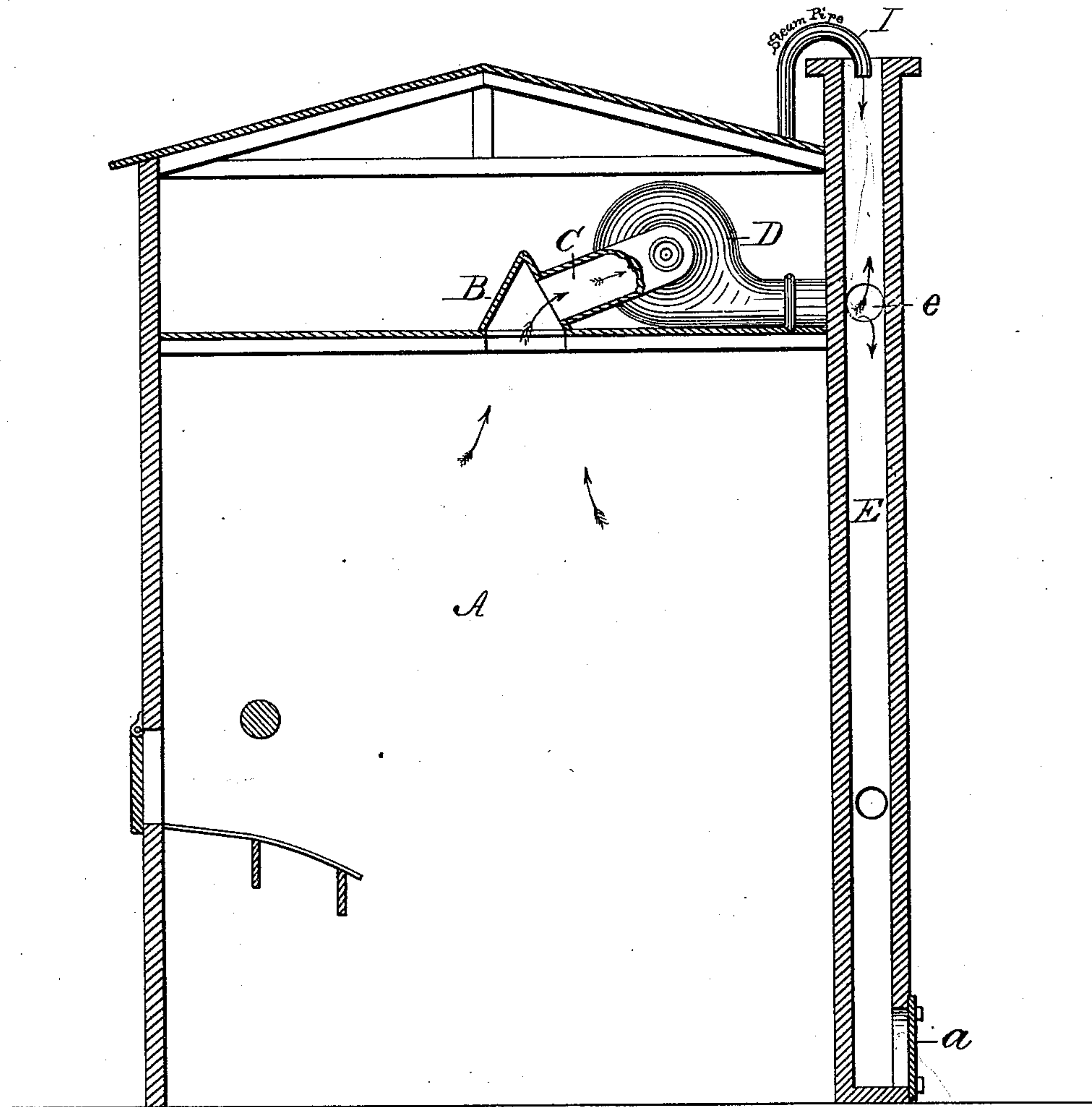


J. DOYLE.

Method of Destroying the Vermin and Collecting the
Dust Arising from Carpet-Beating Machines.

No. 164,274.

Patented June 8, 1875.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN DOYLE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METHODS OF DESTROYING THE VERMIN AND COLLECTING THE DUST ARISING FROM CARPET-BEATING MACHINES.

Specification forming part of Letters Patent No. **164,274**, dated June 8, 1875; application filed March 12, 1875.

To all whom it may concern:

Be it known that I, JOHN DOYLE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Apparatus and Process for Cleaning Carpets and Destroying Moths, of which the following is a specification:

My invention consists of an apparatus and process for gathering the dust, moths, and other material arising from the cleaning of carpets or similar fibrous articles, by means of a fan or other exhaust, and conveying the same into a stack or other suitable receptacle, where it is brought in contact with steam, for the twofold purpose of condensing the dust and waste material, and at the same time destroying the moths or other insects, as hereinafter explained.

The drawing represents a vertical section of an apparatus adapted for the carrying out of my process.

It is now customary to clean carpets by subjecting them to the operation of machines which beat, whip, or brush them. When so treated, a large amount of dust and lint is set free, together with the moths or other insects which are usually found in carpets and similar fabrics. The presence of such quantities of dust is a great nuisance, while the insects, instead of being destroyed, are set free, to repeat their depredations elsewhere. The object of my present invention is to gather the dust and lint into a compact mass, so it can be handled, and also to destroy the moths or other insects.

To accomplish these results, I provide a suitable room, A, in which the carpet-cleaning operation is performed—any of the well-known or suitable machines being located in the apartment and used for cleaning the carpet. As the machine itself forms no part of my invention, I have not deemed it necessary to show it in the drawing.

The apartment is made tight, or nearly so, and along the ceiling overhead I construct a chute or covered passage, B, which is connected by spouts C to an exhaust-fan, D, which latter discharges into a chimney or flue, E, as shown, or in any equivalent manner.

I also arrange a steam-pipe, I, at or near

the top of the chimney in such a manner as to discharge a jet of steam downward in said flue. As a steam-engine is generally used to operate the cleaning-machine, the exhaust steam from the engine may be used for this purpose; but in case the machine be operated by other power, then a boiler may be provided specially to furnish steam for the purpose.

As the machine operates upon the carpet, the dust, lint, &c., together with the moths or other insects will be drawn upward into the chute or passage B, and from thence through the fan D, and be driven into the chimney or flue E. At this point it will be operated upon by the descending jet of steam, which will dampen and condense the dust, causing it to fall to the bottom of the flue E, from which it may be removed at suitable intervals through a door, *a*, the steam at the same time killing the moths or other insects, which are carried along with the dust into the flue. By opening the door *a* more or less, the upward current of the blast may be regulated at will.

It is obvious that no special form of apparatus is required to carry out my process, as all that is required is that the dust and insects shall be brought in contact with the steam, substantially as described.

It is also obvious that, instead of steam, water may be used, either hot or cold, but preferably hot if there be moths or insects to destroy. If water be used, it should be sprayed through a fine sprinkler, so as to insure its coming in contact with all the dust, &c., in the flue. So, also, water and steam may be used together, if desired, though I prefer the steam when it can be had.

The drawing is intended to illustrate a simple form of building and apparatus for carrying out my invention, and in which case the carpet-machine is intended to be located in the apartment A. It is, however, obvious that the fan, chimney, and steam-pipe may be located in an adjoining building, or at some distance from the carpet-machine, provided arrangement be made for conveying the dust, &c., to them.

By this improvement I greatly lessen the annoyance and difficulties heretofore attending the cleaning of carpets, &c., and, what is

equally important, destroy the insects which are so injurious to them.

Having thus described my invention, what I claim is—

1. The combination of the following elements or devices, namely: an apartment for containing the carpet or fabric, a chimney or receptacle for the reception of the refuse material, a fan for conveying said material from the apartment to the receptacle, and a steam-pipe opening into said chimney or receptacle, the whole being arranged to operate substantially as and for the purpose set forth.

2. The herein-described method of gathering the dust and destroying the insects arising from the cleaning of carpets or other fabrics—that is to say, by conveying the dust, insects, &c., by means of a blast, into a chimney or other suitable receptacle, and there subjecting them to the action of steam, substantially as described.

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