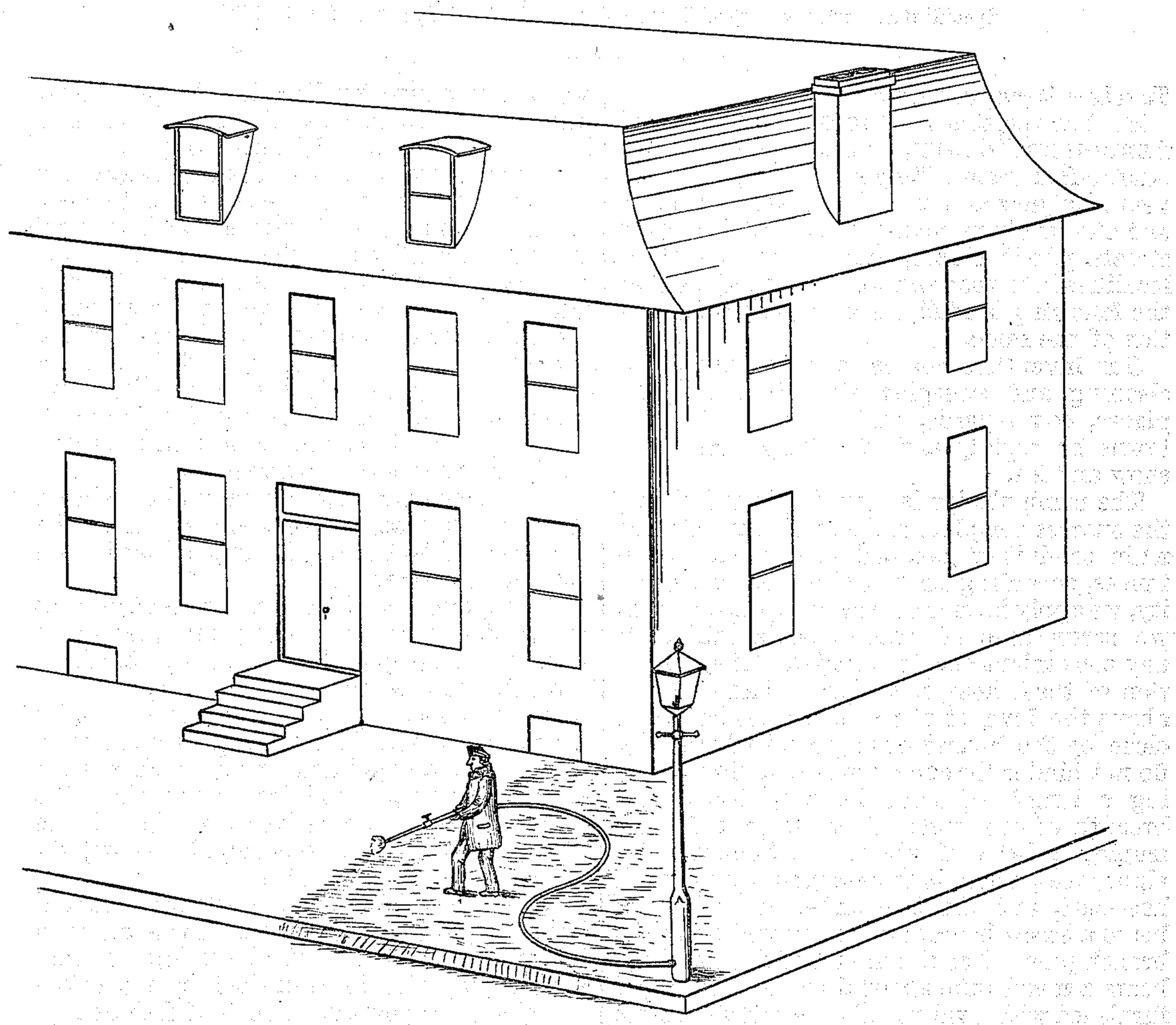
J. FOLKMANN & F. KOLGEN.

Gas Apparatus for Melting Snow and Ice on Sidewalks, Etc.

No. 127,162. Patented May 28, 1872.



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127,162

UNITED STATES PATENT OFFICE.

JACOB FOLKMANN AND FERDINAND KÖLGEN, OF VIENNA, AUSTRO-HUNGARIAN EMPIRE.

IMPROVEMENT IN GAS APPARATUS FOR MELTING SNOW AND ICE ON SIDEWALKS, &c.

Specification forming part of Letters Patent No. 127,162, dated May 28, 1872.

To whom it may concern:

Be it known that we, JACOB FOLKMANN and FERDINAND KÖLGEN, both of Vienna, in the Austro-Hungarian Empire, have jointly invented a new and useful process of rapidly and effectively removing snow and ice in the streets, public places, court-yards, and other localities in towns; and we hereby declare that the following is a full, clear, and exact description of the same.

Our invention relates to a new process of cleaning and sweeping the streets, public places, court-yards, and other localities in towns by rapidly and effectively destroying snow and ice.

The manipulation is very simple and cheap, the success complete and surprising. On the main conduit of gas, and at convenient distances, according to the situation and locality, we apply branch or service pipes, on which we screw hose of leather, India rubber, or any convenient elastic material. The connection of these hose, not higher than one foot above the level of the street, must be either close by the houses or in places where they do not hinder the communication. For cleaning a length of three hundred feet and a breadth of one hundred and eighty feet we employ a hose of about one hundred and eighty feet, which is to be wound upon a small hose-cart, and the free under end of which bears a screw in order to be screwed upon the branch pipe. The upper end of the said hose bears a metal tube about three feet long and furnished with a valve. This metal tube serves as a handle to the workman for directing the jet of gas, as well as for augmenting and reducing the pressure of gas, and for instantly stopping the jet. A perforated cylinder forming the gas-burner is screwed across the mouth of the said metal tube. The dimensions of the burner may vary between six inches and two feet. The performance begins in the center of each section, the length of which is about three hundred feet. The snow and ice covering the half breadth of the street are transformed to water, which flows off easily into the gutters and sewers. For each section we employ a man for directing the jet of gas, another for the service of the hose-cart and hose, and two men with brooms for preventing any swell of water and for clearing away other obstacles. One side of the street must be left free for the passage of carriages and walkers. Arrived at the end of the section the workman returns and causes the hot jet of gas to pass again over the sidewalk the remaining portion of water evaporates, and the sidewalk is dry. When the same work has been done also in the opposite direction the hose is unscrewed, the opening of the branch pipe closed, and the above-described performance begins on the other side of the street.

In the accompanying drawing we have shown the gas-tube attached to a connection on the lamp-post, substantially in the manner hose is attached to water plugs.

An experienced workman can clean at least one thousand two hundred square feet in an hour, and consequently can destroy nine thousand six hundred square feet of compact snow from ten o'clock in the evening to six in the morning. When this work begins at the same time at so many points as must be chosen for removing the snow and ice in one night the largest town can be delivered in eight hours after a snow-fall from this trouble, so prejudicial to travel and to health.

Having now described the nature of our said invention and in what manner the same is to be performed, we desire it to be understood that the gas may also be furnished by any transportable gas apparatus, and that the same apparatus may be fixed or applied to the said hose-cart or to locomotive-engines in order to remove snow and ice from the rails of railways.

The construction of the said hose-cart is identical with the disposition of the carts employed in certain towns for watering the streets and for winding up the hose of fire-engines; but the application thereof for the above purpose is new, and we claim this application.

We may use gas-burners of any form and construction for producing the hot jet of gas.

What we claim, and desire to secure by Letters Patent, is—

1. The use of gas for the production of heat in order to destroy snow and ice in the streets, places, court-yards, and other localities, substantially as herein described.

2. The arrangements and dispositions for conducting the gas from the main conduit into the elastic hose and spreading the hot gas over surfaces covered with snow and ice, substantially as described.

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Witnesses:
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