To all whom it may concern:

Be it known that I, JAMES S. LANG, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful process for removing snow, of which the following is a full, clear, and exact description.

The especial object of my invention is the employment of a process by which snow in a soft or loose condition may be removed under circumstances where it could ordinarily be removed only by the expenditure of much time and labor, as for example,—from railroad switches which in order to work properly must be kept clear of snow; or from man-holes, hydrants or other places where despatch in removing snow may be of the utmost importance.

The process consists in sprinkling upon the snow over the object on or in which the snow or ice has accumulated an inflammable fluid having such volatility that when distributed on soft or loose snow it will volatilize or evaporate with sufficient rapidity to maintain a continuous flame when the vapor from the fluid is ignited; then igniting said vapor, the heat thereof melting the snow.

I have found that in order to remove soft and loose snow by the above process the fluid used must have such volatility that it will volatilize with sufficient freedom to maintain a continuous flame at a temperature of 32° F. or under, because when the fluid is distributed upon soft or loose snow it sinks into the snow and if, like gasoline, it does not volatilize with sufficient freedom under these conditions to maintain a continuous flame, the fluid is absolutely useless for removing snow.

I have found that liquefied gas, a fluid hydrocarbon product obtained from the high compression of Pintsch gas and having a degree of volatility much higher than gasoline, will freely volatilize at a temperature of 32° F. or under, and is not only a cheap but an especially good material for effecting the purpose of my invention inasmuch as it rapidly volatilizes under the conditions above referred to.

In practice the process is an especially effective one. The volatile liquid after it is sprinkled upon the snow will percolate through it, the snow acting as a sponge for retaining the fluid, which rapidly volatilizes. The vapor when ignited will burn for a long time or until the fluid has entirely volatilized during which time the heat from the flame not only melts the snow but drives the object upon or in which the snow has accumulated.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:

1. The process of removing soft or loose snow consisting in applying to snow of the above character an inflammable fluid having such volatility that when distributed upon soft or loose snow it will volatilize with sufficient freedom to maintain a continuous flame when the vapor from the fluid is ignited, and igniting such vapor.

2. The process of removing soft or loose snow consisting in applying to snow of the above character an inflammable fluid of such volatility that at a temperature of 32° F. or under it will volatilize with sufficient rapidity to maintain a continuous flame when the vapor from the fluid is ignited, and igniting such vapor.

3. The process of removing soft or loose snow consisting in applying to snow of the above character a highly volatile inflammable fluid product obtained from the compression of Pintsch gas, and igniting the vapor of such fluid product.

Witnesses:

JAMES S. LANG.

J. E. R. HAYES,
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