UNITED STATES PATENT OFFICE.

CHARLES WILLIAM ROESLING, OF CLEVELAND, OHIO.

IMPROVED POWDER FOR LIGHTING CIGARS, &c.

Specification forming part of Letters Patent No. 47,335, dated April 18, 1865.

To all whom it may concern:

Be it known that I, CHARLES WM. ROES-LING, of the city of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and Improved Powder for Lighting Tobacco and Cigars, for the use of smokers particularly adapted; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying ingredients, the mode of preparing the powder being described below.

The nature of my invention consists in mixing certain parts potash, burned alum, charcoal, and rye-flour together, which, after having been in the fire, will ignite by simply

breathing at it.

It has been known in chemistry for more than a hundred years that certain substances mixed together and prepared in a proper way will ignite when exposed to the atmosphere; but they were generally injurious substances, such as phosphorus and quicksilver; also, some of the ingredients which I use for preparing my powder have been known; but they were totally useless, for the reason that the powder would ignite instantaneously when brought into contact with the atmosphere. I have, however, added certaining redients and mixed them in proportions which will allow the powder, when prepared, to be a certain time exposed to the atmosphere without igniting; but when gently breathed upon it will ignite; hence the usefulness of it. Besides, the ingredients which I use are perfectly harmless.

My powder consists of the following substances: potash, forty parts; burned alum, thirty parts; powdered charcoal, twenty parts; rye-flour, ten parts; total, one hundred parts, After these ingredients in the given quantities are perfectly fine powdered and thoroughly dried they must be well mixed together. This substance is then put into an iron cylinder, which must be hermetically sealed. mixture should be filled into said cylinder without pressing it, and without having an empty space in it. After all this is done the cylinder is to be placed into the fire, allowing it to become red-hot. In this state it is to be kept in the fire for forty minutes. This time having elapsed, the cylinder is to be removed from the fire and put on a place where it will slowly cool off. After six hours the cylinder

can be opened at one end by removing the screw-bolt; but put immediately a cork in the mouth of it, which has a hole through the middle, through which a strong wire can pass. With this wire the substance inside of the cylinder, which has formed into a crust, must be thoroughly stamped, so as to powder it. After this is done the powder must be filled, by means of a funnel, into bottles or tin cases, which can be closed with a cork or screw. The bottles or cases must be perfectly dry before being filled. This being done, the powder is ready for use. The proper proportions of the ingredients, and the adding of the rye-flour in particular, prevent the aluminium and carbonas calium to draw the oxygen contained in atmosphere immediately; hence the ignition of the powder only after breathing at it. Should a greater quantity of rye-flour be added than above given, the powder would light only slowly, and if added too much it would not light

The advantages which this powder offers to smokers are very great. He can light his pipe or cigars by simply putting a little of the powder on his pipe, then to breath on it, and the tobacco will burn. The smoker can use it in any kind of weather, no matter whether windy or rainy, and when the use of matches are of no avail a farmer, laborer, miner, or any one being in the open air can light his pipe or cigar with this powder when he cannot use matches, they having become damp from some cause, or it being too windy. Another great advantage is the cheapness of the powder over the present price of matches, careful calculations and trials having decided the fact that five pounds of this powder, when ready for use, will not cost more than two dollars and fifty cents, and five pounds of powder will last an incredible long time. I propose to fill small tubes, which are handy to carry in the pocket, like ordinary pocket match-safes, for the use of the public

What I claim, and desire to secure by Letters Patent of the United States, is-

The composition prepared substantially as

set forth, for the purpose specified.
CHARLES WILLIAM ROESLING.

Witnesses:

A. Koebler. SAMUEL LANE.