

UNITED STATES PATENT OFFICE.

CHARLES E. THOMPSON, OF LANSINGBURG, NEW YORK.

FIRE-KINDLER.

SPECIFICATION forming part of Letters Patent No. 344,880, dated July 6, 1886.

Application filed December 11, 1885. Serial No. 185,412. (No specimens.)

To all whom it may concern:

Be it known that I, CHARLES E. THOMPSON, a resident of Lansingburg, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Fire-Kindlers; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in fire-kindlers.

The object of my invention is to provide cheaply an article of manufacture for use in kindling a coal fire, and in providing the wrapper of the article with an inner pliable coating or lining, impervious to oils and the gases arising therefrom, whereby the gases and oils are wholly confined within the wrappers, which do not crack nor adhere to each other in storage or shipment.

My invention consists in providing as a complete article of manufacture a fire-kindler composed of broken pieces of combustible material, as corn-cobs and charcoal treated with some inflammable oil, as petroleum, and sufficient in amount to kindle a single fire, sealed up in a wrapper which has been treated on its inner side only with a solution of glue, tempered with some softening ingredient, as salt, molasses, or glycerine.

I have not provided any drawing, as it would be of little or no use in illustrating the nature of my invention.

It is well known that oil is very sensitive to capillary attraction, and it will penetrate any unprotected wrapper constructed of a material cheap enough to render a fire-kindler in which oil is an ingredient available. Glue has been used to protect such wrappers, but it was applied to the outside of the wrapper, and in damp weather or when stored in a damp place, the glue became sticky and the packages adhered together so that when separated the wrapper was torn or broken, so that the oil would penetrate the wrapper, and, coming to the surface, was evaporated, throwing off odoriferous gases, which were offensive to the dealer and consumer, and were lost to combustion as a fire-kindler. As soon as the glue so applied,

either alone or upon some filling substance, as shellac, became dry, it became hard and brittle, and the wrapper was wholly unfit to contain broken or irregularly-shaped pieces of any material treated with oil, as it would be impossible to prevent the cracking of the brittle glue in handling the packages and the escape of the oil and gases.

I have ascertained that by adding a softening ingredient to glue, as salt, molasses, or gelatine, I am able to temper it and cheaply produce a pliable impervious lining for the wrapper which will not harden nor crack. I have also ascertained that the wrappers can be given an impervious coating made from glue so tempered upon their inside alone by pouring a thin solution in and out of the wrappers before the oil-treated ingredients are inserted therein. The ingredients are then inserted in the wrappers, which are closed, and when dry become tightly sealed. The wrappers being closed and the mouths securely tied or otherwise fastened together before the impervious coating has set, the contents become hermetically sealed and remain so until they are used in kindling a fire.

I am aware that packing-boxes rectangular in shape adapted to contain for transportation a quantity of fire-kindlers, also rectangular in shape, have been treated on their inner sides with an impervious coating of shellac cut in alcohol and glue applied hot, but such a coating is not adapted for use in irregularly-shaped packages, or in paper packages designed to receive irregularly-shaped kindlers, such as broken corn-cobs or charcoal, as it would crack during transportation and become useless.

A package strong enough to resist the cracking of a brittle coating would be too expensive for a single kindler, and if the package is large enough to contain material for kindling a fire more than once it becomes comparatively worthless after the seal has been broken for the first use, and the contents would adhere to the wrapper, so that it would be difficult to remove them without tearing and spoiling the wrapper.

By employing impervious coating that is pliable, I can make use of irregularly-shaped material, as broken corn-cobs or charcoal, and preserve the wrapper intact until used.

I am thus able to cheaply produce a com-

plete and durable article of manufacture suitable for immediate or subsequent use, and adapted to be stored or transported without danger of injuring surrounding objects or becoming offensive to dealer or consumer.

I am aware that boxes have been coated with glue alone, with glue and bichromate of potash, and with a mixture of glue, shellac, and alcohol; but

10 What I claim as new, and desire to protect by Letters Patent, is—

As an article of manufacture, a fire-kindler consisting of a quantity of broken combustible material, as corn-cobs or charcoal treated

with an inflammable oil and contained within 15 a paper wrapper having its inner side coated with a solution of tempered glue, whereby a quantity of oil-treated material adapted to kindle a single fire is provided with a sealed pliable wrapper suitable for transportation or 20 storage.

In testimony whereof I have hereunto set my hand this 10th day of December, 1885.

CHARLES E. THOMPSON.

Witnesses:

GEO. A. MOSHER,

W. H. HOLLISTER, Jr.