United States Patent Office.

JOHN RUCH AND JOHN RUCH, JR., OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THEMSELVES AND GEORGE RUCH, OF SAME PLACE.

MOTHPROOFING HAIR, WOOL, &c.

SPECIFICATION forming part of Letters Patent No. 367,550, dated August 2, 1887.

Application filed April 15, 1885. Renewed May 27, 1886. Again renewed December 27, 1886. Serial No. 222, 738. (No specimens.)

To all whom it may concern:

Be it known that we, John Ruch and John Ruch, Jr., both citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented certain Improvements in Preventing the Breeding of Moths, of which the following is a specification.

The object of our invention is to effectually destroy and prevent the breeding of moths in curled hair, wool, and like materials used in upholstering furniture, and this object we attain by subjecting the mass of wool or hair to the action of smoke arising from the combustion of pitchy or resinous substances or other hydrocarbons, the combustion of which produces large volumes of dense smoke.

Not only are the moths and their eggs or grubs which may be in the hair or wool destroyed by this treatment, but said hair or wool retains a permanent odor of smoke, and is thereby rendered so offensive to the moths that they will not deposit their eggs upon it, nor will the worms or grubs of the moth-fly attack it.

It is advisable in some cases to subject the hair or wool to a pickling operation before smoking it. For instance, hair in the rope may be boiled in a strong brine made by dis-

solving chloride of sodium or other salt in water, to which, in some cases, a small quantity 30 of muriatic acid may be added, the hair when dry being picked out of the rope and then smoked. This preliminary operation, however, is not essential, nor do we limit our invention thereto.

We claim as our invention—

1. The mode herein described of rendering curled hair, wool, or like material moth proof, said mode consisting in subjecting the hair or wool to the action of the smoke from hydro-40 carbons of a character substantially as specified.

2. The mode herein described of rendering curled hair, wool, or like material moth-proof, said mode consising in first pickling the hair 15 or wool and then subjecting the same to the action of the smoke from hydrocarbons of a character substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of 50 two subscribing witnesses.

JOHN RUCH. JOHN RUCH, JR.

Witnesses:

WILLIAM F. DAVIS, HARRY SMITH.