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UNITED STATES PATENT OFFICE

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MULCH PAPER AND PROCESS OF MAKING SAME

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Our present invention relates to improvements in mulch papers and it is the principal object of our invention to provide a paper of this type which shall be economical of manufacture and of high resistance to fungi and insects. It is the function of a mulch paper to accelerate seed germination, to intensify the growth of the plants, suppress weeds, to eliminate cultivation, and in many cases it is found that the paper deteriorates from the attack of fungi, particularly molds, before its full usefulness in protecting the growing seeds is had. In accordance with our present invention, we incorporate with the asphalt or other bituminous material, with which it is customary to coat or impregnate the paper, a quantity of sulphur. The sulphur and asphalt, for example, may first be mixed mechanically and then heated, or each may be heated separately and thereafter may be mixed when both are in a liquid state at a temperature of about from 120° C. to 160° C. The sheet then has applied thereto this mixture in any suitable manner as by impregnation or coating or by both of these operations. If the sheet is coated, it is best to coat both sides, although one side only may be coated, if desired.

In lieu of first incorporating the sulphur in the bituminous material and then applying the mixture to the paper, the sulphur may be applied to the paper freshly coated with the bituminous material, as by dusting the sulphur thereon, the sulphur particles being relatively fine. This procedure has the advantage that the outer surface is highly toxic to fungi and is also rendered less adherent to other objects by reason of the pulverulent character of the coating.

The proportion of sulphur to asphalt or other bituminous material may be varied considerably depending upon the use to which the material is put, but for most purposes a ratio of 10 parts of sulphur to 90 parts of asphalt is satisfactory.

In the claims, the words "coating" and "coated" are used both in the sense of coating and impregnation.

We claim:

1. The method of making a paper mulch which consists in first coating the paper with a bituminous material and then dusting thereon sulphur in powdered form.

2. A mulch paper comprising paper coated with a bituminous material, the surface thereof being coated with powdered sulphur.

3. A mulch paper comprising paper coated with a mixture composed of bituminous material admixed with free sulphur in an amount to act as a germicide.

In testimony whereof we have affixed our signatures to this specification.

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