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SOOT-DESTROYER COMPOSITION.

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The invention relates to a composition of matter, put up in a powdered form and adapted to be used to destroy soot in furnaces, chimneys and other places where soot is a detriment to the fire and good draft of the same.

In the use of oil burners which are now becoming quite extensive owing to the perfection of oil burning devices, soot is collected more or less within the furnace and the flues and chimney which becomes very detrimental to the draft after a certain accumulation of the same. This composition, used in the quantity desired will entirely eliminate and destroy the soot within the flues, furnace and other receptacles of the fire chamber or walls of the fire box, so as to thoroughly and completely cleanse the same. In the use of this composition the destroying of the soot can readily be apprehended by the burning of the same in the dull, red fire which creeps along and eats up and destroys the soot out of the flues and compartments when this composition is used on the fire, so that the burning of the soot takes place in a manner to completely destroy the same, as the soot seems to form a means of causing combustion and burning in a dull, red, flame which creeps along with the soot wherever the soot is deposited and can readily be apprehended after placing a quantity of this composition in the fire.

In carrying out my invention, I take suitable proportions of potassium nitrate (KNO_3) and charcoal in a powdered and pulverized state, which is thoroughly mixed by any suitable well known mixing means. This mixture may be put up in packages as may be desired, in the quantity desired, and may be formed into biscuits or balls which can be conveniently stored and kept for use.

In practice I have found that a very effective compound for the purpose stated is made up by using the above mentioned ingredients in approximately the following proportions by weight: potassium nitrate 75 parts and charcoal 25 parts; potassium nitrate 50 parts and charcoal 50 parts. I do not desire to confine myself to these exact porportions although they are preferable and sodium nitrate or calcium nitrate may be used if it is desired which are protective in some form for soot destroyer in place of potassium nitrate.

I have also found in practice that a very effective compound for the purpose set forth is made by a composition of ingredients in approximately the following proportions: potassium nitrate 50 to 90 per cent and charcoal 50 to 10 per cent: also potassium nitrate 80 per cent and charcoal 20 per cent; also potassium nitrate from 50 to 90 parts and charcoal 49 to 9 parts, together with 1 part sulphur. The sulphur may be increased in parts decreasing the other parts proportionately, particularly the charcoal. The sulphur increases the combustion in certain places where soot is to be destroyed.

In using my soot destroyer it may be applied in the fire box of a furnace or over the burner of an oil burner so that the combustion of the composition within the fire box and the flues of the furnace and the chimney are filled with the gases and the combustible particles of my composition. The charcoal absorbing some of the sodium nitrate in a manner so as to carry the same as the charcoal burns through the intricate parts of the flues, furnace and chimney as it is known that charcoal in burning sputters and flies so as to carry the burning particles into the very depths of the soot deposit. This causes the soot to be ignited and combusted and to burn in a dull, red, creeping fire-like formation until the entire inner surface is eaten away by the red, creeping fire. By observation the fire can be watched and it can be readily seen that the soot is destroyed as the fire creeps along, thoroughly and completely cleansing the inner chamber of all soot so as to completely destroy the same.

In treating a furnace or burner with my composition to destroy soot the desired amount can be applied to the fire until the soot is entirely removed. The absence of the red, burning creeping fire indicates that the compartments are thoroughly cleansed of all soot.

In accordance with the patent statutes I have described the principles of operation of my composition for destroying soot and carbon particles within the fire and the compartments thereof of a furnace or oil burner, and while I have described a particular composition of ingredients together with certain proportions, I desire to have it understood that these are only illustrative and that the invention can be carried out by other means and applied to other uses other than those

above set forth within the scope of the following claims.

I claim:

1. A compound for treating and destroying soot in furnaces comprising, potassium nitrate and charcoal in powdered formation in the proportions of from 50 to 90 per cent of the former to 50 to 10 per cent of the latter.

2. A compound for destroying soot and carbon comprising, potassium nitrate and charcoal in the proportions of 50 to 90 per cent of the former and 50 to 10 per cent of the latter in a powdered pulverized formation thoroughly mixed, the composition being used in a powdered form or shaped into biscuits or balls or other shapes substantially as described.

3. A compound for destroying soot in furnaces and oil burners comprising, potassium nitrate, powdered charcoal and sulphur thoroughly mixed in and about proportions herein described.

4. A composition for destroying soot comprising, potassium nitrate and charcoal thoroughly and completely mixed in and about the proportions herein set forth.

5. A compound for destroying soot comprising sodium nitrate and charcoal the former of which in the proportions of from 60 to 95 per cent and the latter in proportions of 40 to 5 per cent.

6. A compound for destroying soot comprising, calcium nitrate, charcoal and sulphur, thoroughly mixed in and about the proportions herein described.

7. A composition for eating soot by combustion comprising, calcium nitrate and charcoal in the proportions of from 50 to 95 per cent of the former, to 50 to 5 per cent of the latter.

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