106. COMPOSITIONS, COATING OR PLASTIC
79
Cross Reference
Examiner

Patented Dec. 20, 1932

1,891,506

UNITED STATES PATENT OFFICE

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REPAIR LEAK COMPOUND

No Drawing. Application filed May 28, 1930. Serial No. 456,822. 106 -33

This invention relates to a compound for repairing leaks in boilers, radiators, and other hot water circulating systems.

The invention has for its object the provision of a composition which will permanently seal the leaks in any hot water circulating system without the formation of any coatings or other matter which will tend to clog the system in any way.

It has been heretofore suggested and in fact, many compositions of this nature contain soap, but it has been found that soap will cause the water in the system to froth and will siphon the water from the system and in time, leave the same dry.

It is doubtful if the soap is of any efficacy in a mixture of this sort and, consequently, the novel compound hereinafter described does not include soap in any form.

Another object of the invention is to provide a compound for sealing leaks in hot water systems of such a nature that the compound may be introduced into the system in either dry or liquid form.

A further object of the invention is to provide a leak-sealing compound in which the ingredients are so combined as to form a water-insoluble glue upon drying.

According to the invention, the compound comprises flaxseed meal, aluminum powder, dry sodium silicate and casein in such proportions as to effect the sealing of any leaks in a hot water circulating system.

It has been found out by experiment and test that a compound of approximately the following proportions gives excellent results, to-wit:

	Ounces
Flaxseed meal	16⅔
Aluminum	1½
Sodium silicate (dry)	2
Casein	2½

While it is admitted that flaxseed meal and aluminum have been used in many compounds for stopping leaks in boilers, radiators and the like, the mixture or compound here disclosed is novel in that not only the proportions of these elements or ingredients are different than formerly, but the addition of sodium silicate and casein give the compound an efficacy not found in compounds heretofore suggested.

The casein is brought into the solution by the alkali of the sodium silicate, and when in this state is capable of forming a water-insoluble glue upon drying. When the compound is suspended in the hot water circulating system, the mixture will seep through any fissure in a cylinder head, boiler head, radiator, etc., and will promptly solidify, due to the evaporation of the water. This will result in the formation of a water-insoluble seal.

The formation of this seal not only depends upon the unique combination of the dry silicate of soda and casein, but is aided by the combining of the aluminum with the casein to form aluminum caseinate. This combination of protein and aluminum gives a very effective and permanent water-insoluble seal.

The flaxseed assists in the distribution of the other desirable material and as known, aids in the stoppage of leaks. Its inherent efficacy will also be greatly augmented by the casein-sodium silicate.

Of course, the proportions stated herein are substantial and various changes and modifications thereof may be resorted to without departing from the invention herein set forth and hereafter claimed.

We claim:—

1. A leak repair compound for hot water circulating systems, comprising flaxseed meal, pulverized aluminum, dry sodium silicate, and casein.

2. A leak repair compound for hot water circulating systems, comprising approximately 16⅔ oz. of flaxseed meal, 1½ oz. of pulverized aluminum, 2 oz. of sodium silicate, and 2½ oz. of casein.

In testimony whereof we have signed our names to this specification.

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