

UNITED STATES PATENT OFFICE

2,363,468

CALKING COMPOUND

Duane H. Tollstrup, Los Angeles, Calif.

No Drawing. Application July 26, 1941,
Serial No. 404,256

1 Claim. (Cl. 106—282)

My invention relates to calking compounds such as are used for the calking of joints and seams and the like in wooden, metal, ceramic and other structures, as, per example, cast iron and tile pipe, the deck planks of floating craft, etcetera, elements that do not move relatively to one another to any appreciable extent, and therefore is not related to packing compositions used between parts moving relatively to one another, as, per example, adjoining the piston rod in a steam engine, etcetera, one of whose principal functions is the attainment of minimum friction, with which my calking compound does not at concern itself.

The most important object and advantage of the instant invention is the provision of a calking compound that can be manufactured, installed and maintained with a maximum of economy, speed and simplicity. Other objects and advantages manifest themselves in this specification.

The instant invention is characterized particularly by the incorporation of a substance heretofore not used in calking compounds, namely, bentonite, which is used together with fibrous material and with or without a hydrocarbon oil to produce an article that differs from and is better than any compound now used, in that it is more water resistant under pressures, more efficient, cheaper to manufacture, and if used in conjunction with lead, which is a common practice, the amount of lead can be reduced to a great extent. It also differs from compounds used at present in that the variety of oils or oil compounds that can be used with practically the same results, is extensive, such as asphalt base road oil, mixtures of tar and oil, or paraffine mixed with oil, coal tar and any fuel oil, crude oil, or even used crank case oil, it being understood that the term, oil, herein refers to any of the foregoing and to any entirely or partly oleaginous and entirely or partly mineral substance.

A satisfactory example of my invention or discovery is as follows: For example, to thirty-seven per cent, by weight, fiber, such as hemp, jute, discarded burlap, old rope, etc., and thirty-three per cent by weight, oil and thirty per cent, by weight, of a chemical known as bentonite.

The bentonite may be employed in several different ways with similar results, as follows:

(1) Powdered bentonite may be dusted into loose, dry fibers and then impregnated with oil.

(2) Bentonite may be mixed with oil and dry fibers dipped into the aforementioned oil and bentonite mixture.

(3) Bentonite may be dusted into fibrous material after it has been impregnated with oil.

(4) Bentonite may be dusted into the fibers or without the use of oil and the resulting product used as a packing for certain types of work.

Tests I have made, using my composition in all kinds of packed and screw joints have proven that my composition will withstand approximately two hundred per cent (200%) more pressure per square inch without leaking than any of the compounds used at present. These tests disclosed that this composition could and did withstand constant pressure in the aforementioned amount for a period of sixty (60) days.

A salient characteristic of bentonite, which makes it valuable is that it does not absorb the oil, but when water comes in contact with the mixture of oil and bentonite, the bentonite leaves the oil and is saturated with the water, causing the bentonite to swell.

While I have fully described my invention or discovery as set forth above, I do not wish to limit myself to the exact quantities as specified or to the various methods of application set forth because the use of bentonite and fiber as the main or essential elements in a calking compound and constituting the bulk or the greater part thereof is an innovation initiated for the first time in the instant invention. Consequently, the use of both bentonite and fiber, regardless of their mutual relative quantities, in a calking compound falls within the scope of the instant invention.

I claim:

A calking compound constituted of the following ingredients related to the total mass by weight substantially percentually as indicated: bentonite, thirty percent; fibrous material, thirty-seven percent; from the group consisting of asphaltic, coal tar and mineral oil, thirty-three percent.

DUANE H. TOLLSTRUP.