

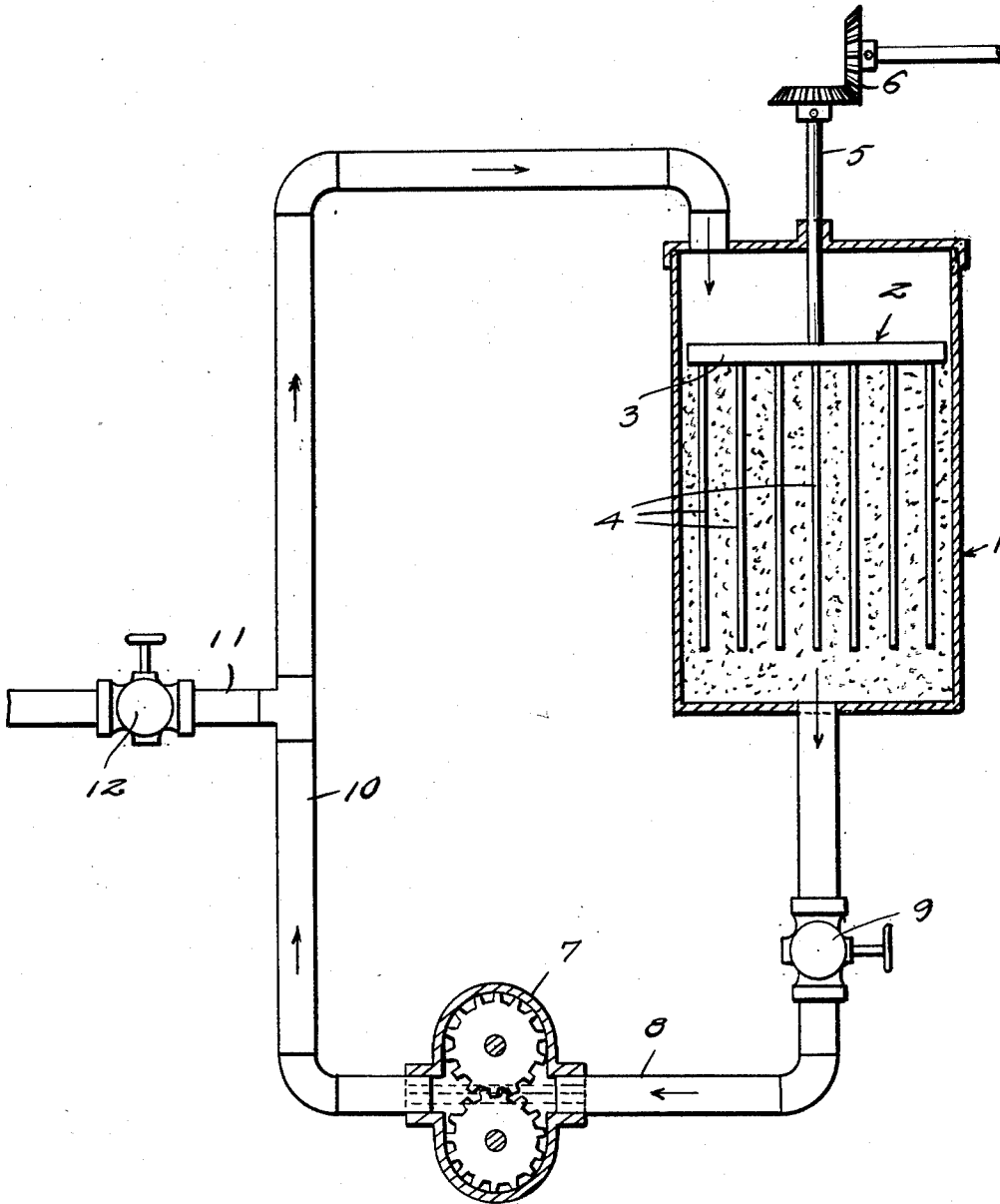
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PROCESS FOR THE PRODUCTION OF PAINTS

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PROCESS FOR THE PRODUCTION OF PAINTS

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This invention relates to the production of coating compounds and more particularly to a new process for agitating, grinding and mixing powdered asbestos and other fillers with liquefied asphalt or tar to produce a paint or roof coating.

The present methods employed for grinding pigments and coating materials in the proper vehicles are slow and expensive and bitumen roof coatings are now so low in price that manufacturers cannot afford to give them the slow mill grinding which is given to other and more expensive coatings and paints such as the lead or zinc and oil coating compounds. The present process is such that a bituminous asbestos carrying roof covering or coating may be given as thorough a mixing treatment as is given other and more expensive coatings without the consumption of the same amount of time and creation of the same amount of expense.

A further object of the present invention is to provide a roof coating in which the solid particles are so thoroughly ground and mixed with the vehicle that they will remain in suspension and there will be no settling of the same to the bottom of the container.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claim.

In the drawing:—

The figure shown illustrates the mechanism employed in carrying out my improved process.

In carrying out the process embodying the present invention, I employ a mixing tank 1 in which the ingredients making up the coating compound are placed, which compound may consist of a mixture of asphalt or tar with powdered asbestos.

A suitable means may be employed for

maintaining the tar or asphalt in a necessary liquid state.

The tank 1 is provided with an agitator 2 preferably of the type embodying a bar member 3 carrying a plurality of depending agitator fingers 4, the bar being suspended within the tank upon the lower end of the vertical shaft 5 which may be rotatably driven through the gear connection 6 by any suitable power mechanism (not shown).

Associated with the mixing tank 1 is a rotary gear pump 7, the inlet side of which is connected with the lower portion or bottom of the tank by the pipe line 8, which line has a valve 9 interposed therein.

The outlet side of the pump 7 is connected by the return pipe 10 with the upper portion or top of the mixing receptacle 1 as shown, this pipe line having leading therefrom a discharge pipe 11 which is controlled by the valve 12.

In preparing the roof material according to my process, a vehicle and solid ingredients thereof as for example asbestos, are placed in the tank 1 where they are thoroughly agitated by means of the agitators 2. The rotary gear pump 7 is operated at a high speed and the contents of the tank allowed to pass through the valve 9 and feed line 8 into the pump where the asbestos and other material in the bituminous vehicle is thoroughly ground by the teeth of the pump. In addition to this grinding action which is obtained through the use of the pump, the material is maintained in a constant state of agitation and circulation through the pipes 8 and 10.

When the mixture has been agitated sufficiently and the solid ingredients thereof ground to the proper consistency the valve 12 of the draw-off pipe may be opened whereupon the mixture will be forced by the pump 7 through the same to receiving receptacles.

By the use of the pump 7 which, traveling at a high speed thoroughly grinds the solid particles of the mixture and thoroughly agitates the mixture, a finished coating can be produced in a fraction of the time required for the production of a similar coating by the methods at present employed. This means

that material saving in labor and expense is effected and it will be also readily understood that considerable expense will be saved in the production of roofing materials by my method by reason of the fact that very little and inexpensive equipment is required for carrying out the process.

Having described my invention what I claim is:—

In an apparatus for the preparation of a liquid coating composition containing solid particles, a receptacle, an agitator within the receptacle, having means extending to the exterior of the receptacle for transmitting motion thereto from a source of power exteriorly of the receptacle, a rotary gear pump a pipe line connecting the lower portion of said receptacle with the intake side of said pump, a pipe line connecting the outlet side of the pump with the upper part of the receptacle, and draw-off means leading from said last mentioned pipe line, said gear pump being designed to grind up said solid particles in addition to maintaining a circulation of the liquid.

In testimony whereof I hereunto affix my signature.

JOSEPH B. CARPER.