The T & M mode of fuel feeding is the simplest known. Fig. 535 shows interior working of same. Suction thru the air pipe causes a partial vacuum around the spray nozzle, lifting the fuel therefrom and at the same time breaking it up into a fine spray that is vaporized into gas on its way into the cylinder. The amount of fuel is regulated by the needle valve. The fuel is drawn up from the tank, so no complicated attachments are required, and there is no danger of the fuel running out when the engine is stopped, as the tank is below the nozzle. A pump is not necessary for ordinary use; but where engine is installed in a factory or shop or in a building requiring outside fuel tank, we supply a fuel pump like the cut shown herewith, which is attached to the engine and operated by the push rod. When a pump is used, we supply the overflow cup type of air inlet, Fig. 536, through which the fuel is pumped—the surplus being returned to the tank thru overflow pipe. For prices of this pump, see price list and code.

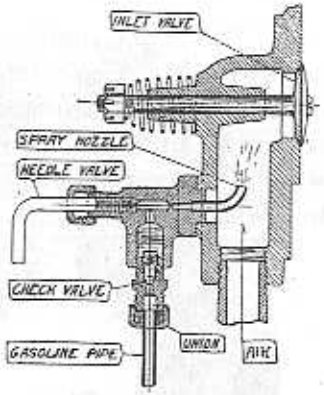


Fig. 535
T & M Standard Suction Feed

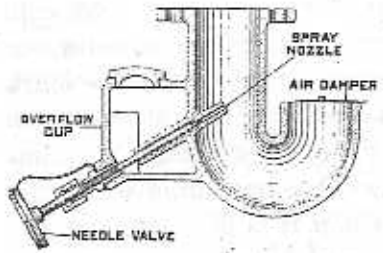


Fig. 536
Gasoline Feed with Overflow Cup for Pump Feed

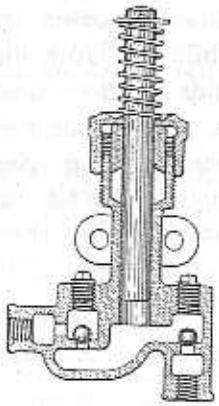


Fig. 537
Fuel Pump

Our system of fuel feed is unsurpassed. It yields the highest economy for power known today, and being reliable and easy to handle, it quickly appeals to every prospective buyer. We advise ordering the pump feed only when it is necessary to set the fuel tank away from the building.

Suction feed is endorsed by insurance companies as being safe, and engines having this type of feed may be operated in insured buildings.

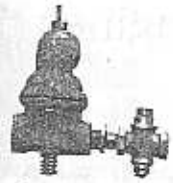


Fig. 538
Gas Attachment for city or natural gas for attaching to any size T & M engine.

T & M engines operate on gasoline, kerosene, distillate, alcohol, or city or natural gas. We can supply special attachments for using the different fuels. When gas is used we supply a gas attachment fitted to the air pipe, at small additional cost, which uses gas according to the load. The gas can be regulated to suit; the flow will then work automatically. City gas gives a little less power than gasoline or natural gas. See price list for these attachments.

Kerosene is the cheapest fuel to use; but it is necessary to start the engine on gasoline and warm it up before turning on the kerosene. For this reason it hardly pays to bother with kerosene on the small engines of 4 h. p. and under, especially on short runs. We supply special attachments for kerosene feed, at a slight additional cost, and where used continually it pays to add this accessory because the fuel saving of kerosene over gasoline will pay for it in a very short time. In some localities, fuel oil, or distillate, is procurable. This can be used in our kerosene attachment. In all cases the engine must first be started on gasoline or alcohol.

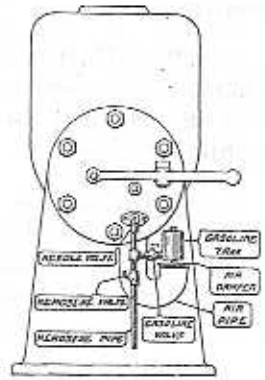


Fig. 539
Kerosene Attachment of 1½, 2½ and 4 h. p. Engines

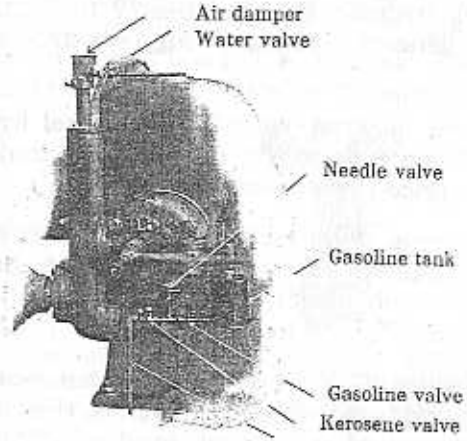


Fig. 540
Kerosene Attachment of 6, 9 and 12 h. p. Engines

If it is desired to lower the cost of operating the small engines, we recommend that gasoline and kerosene be mixed together—half and half—or one-third gasoline and two-thirds kerosene. This is a good plan to follow on the large sizes, as it gives practically as clean burning as gasoline at two-thirds the cost difference.

T & M Engines are Good Engines

Adaptability—T & M engines are adapted to all uses where power is used. They can be adjusted to any desirable speed; pulleys can be fitted to suit the work. They are quiet running, and give all around satisfaction.

Power—T & M engines are celebrated for their power and their ability to stand up to their work. They all deliver more than their rated power, and do so as long as required.

Economy—Is one of the strong characteristics of the T & M engines, and its adaptability to low grade fuel is an attractive feature.

Simplicity—The T & M has no complicated or useless parts. This is clearly shown in the illustrations. Every user realizes what this means. Simplicity is one of the points that make the T & M so popular.

Reliability—T & M engines are perfectly reliable. They can be depended on at all times to do the work imposed upon them. As we use the best material and give them a thorough test, there is practically no chance of your purchasing the least bit of trouble with a T & M.

Strength—Every part is built with a large factor of safety; every part being many times stronger than necessary to do the work—and still it is light. The general appearance suggests strength, and shows a neat design.

Fuel—T & M engines can be used with kerosene fuel by a slight change in the feed. When ordering, it should be stated if kerosene feed is wanted. See price list for cost.

Speed—T & M engines have wide speed control, and the speed can be changed while running. Being of the high compression type, they are capable of much higher speed than rated, and of consequent increase in power when desired.

Repairs—All T & M engines are built on the interchangeable system, every part being manufactured on special jigs, so they are all alike. You are therefore assured of prompt service, without trouble in getting the part to fit. But you will not require repairs unless some part is broken by accident.

Uses of T & M Engines

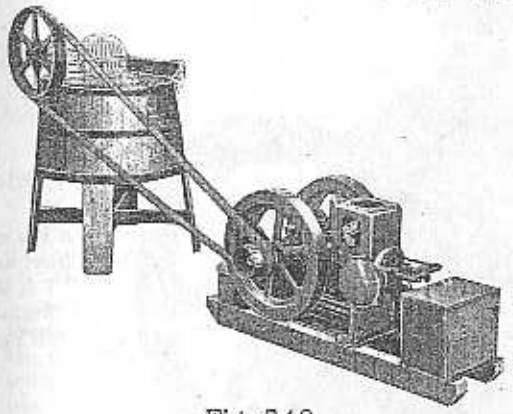


Fig. 540
"It's a Pleasure to Wash with a T & M"

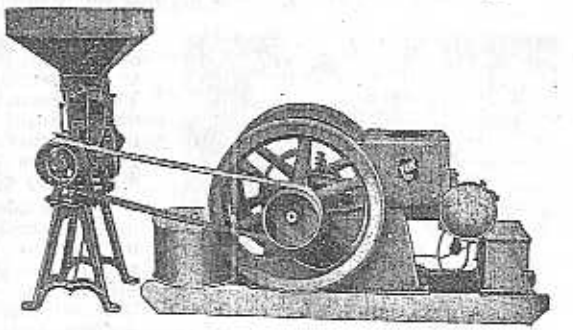
It would take pages to enumerate all the uses for which T & M engines are adapted. The progressive housewife of the present day would not attempt to wash without a washing machine and a 1½ h. p. T & M engine. Thousands of households so employ them. Manual work by mere muscular force was of course necessary in bygone days, before the advent of the gasoline engine but it does not pay now. It is becoming well known now that every manual operation should be performed by power, leaving the brain free to direct the work and plan to the best general advantage. The man who does not use power will soon be left behind by the man who does, because the latter will have the advantage of producing more with less outlay than the former; and in consequence his profits will be greater. These are facts too well known to dwell upon.

For every operation about the farm, workshop, quarry, factory, cement plant, in fact anywhere that power is required, the T & M fits in perfectly—having the speed variation, reliability and economy that make them adaptable to all work laid upon them.

Feed grinding and cutting are some of the popular operations of the 2½, 4 and 6 h. p. T & M sizes. The engines, mounted on substantial skids or trucks, are very readily removed from place to place.

A Northern Wisconsin Farmer says:

"I am more than pleased with my 4 h. p. T & M engine. I am running a 12 inch feed cutter continually and have never been able to stall the engine."



Feed Grinding Made Easy
10 to 20 Bushels per Hour with 2½ H. P. T & M