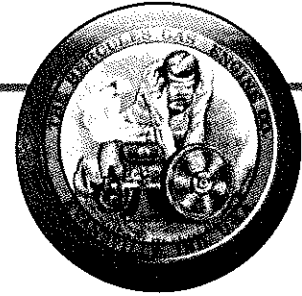


Hercules Engine News

By Glenn Karch

Natural Gas Mixer



In the fall of 1916, Sears, Roebuck & Co. began offering engines that would burn natural gas, artificial gas or gasoline. As Picture #1 shows, these engines were advertised as available in all sizes. Unfortunately, the details of this gas attachment are not clear enough to see what it looks like, and they are not illustrated in any other literature seen so far.

Earlier this year the opportunity came along to obtain the fuel mixer shown in Picture #2. It is nothing more than the common "J" mixer used on the gasoline hit-and-miss engines, except it has a threaded port in the casting to screw something into it that has 3/4-inch pipe threads. I have never seen the gas attachment that screws in there, nor have I ever talked to anyone who

has seen it. From what I can see in the catalog, it appears that some kind of horizontal gas attachment is screwed into the mixer at the same point.

Taking a clue from the later vertical-type gas attachment, I decided to try to make one, as shown in Picture #3. It is simply a hollow chamber with a seat and moveable gas valve in it that works against a weak return

Economy Gas Engines

Economy Gas Engines are equipped to burn natural or artificial gas or gasoline, without making any change in the equipment. Equipped as shown in the illustration to the right, shipped from a city near you, as indicated above.

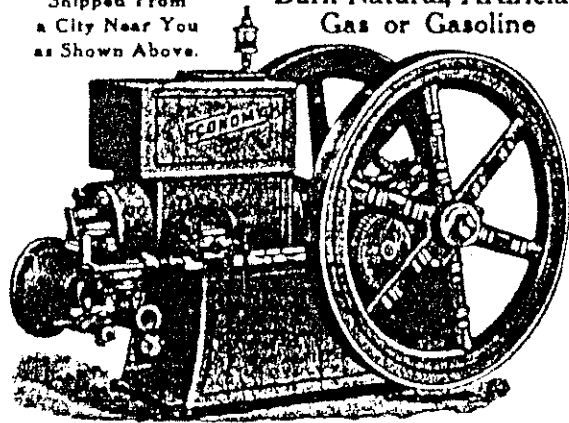
Gas bags and gasometers are used in some sections in connection with the engines; the gas bag where pressure is low, a gasometer where pressure is high. Ask your gas company if the gas they supply is under high or low pressure, and order gas bag or gasometer accordingly. We can furnish a gas bag for any size of engine for an additional price of \$4.50 or the gasometer for \$10.00.

These engines are equipped with Webster magneto only. We do not furnish them with battery. The Webster magneto gives a big hot spark Winter or Summer. No batteries are needed, and we guarantee the magneto will last as long as the engine itself. For size, weight and other specifications on gas engines, see description of our regular gasoline engines.

No. 47F1514 1 1/2-Horse Power Magneto Equipped Gas Engine, with 4x4-inch Pulley. Shipping weight, 278 lbs. Price...	\$35.95
No. 47F2514 2 1/2-Horse Power Magneto Equipped Gas Engine, with 6x4-inch Pulley. Shipping weight, 520 lbs. Price...	51.95
No. 47F314 5-Horse Power Magneto Equipped Gas Engine, with 12x4-inch Pulley. Shipping weight, 881 lbs. Price...	80.45
No. 47F714 7-Horse Power Magneto Equipped Gas Engine, with 18x4-inch Pulley. Shipping weight, 1,200 lbs. Price...	108.50
No. 47F914 9-Horse Power Magneto Equipped Gas Engine, with 20x4-inch Pulley. Shipping weight, 1,507 lbs. Price...	143.00
No. 47F1214 12-Horse Power Magneto Equipped Gas Engine, with 24x4-inch Pulley. Shipping weight, 2,406 lbs. Price...	198.50

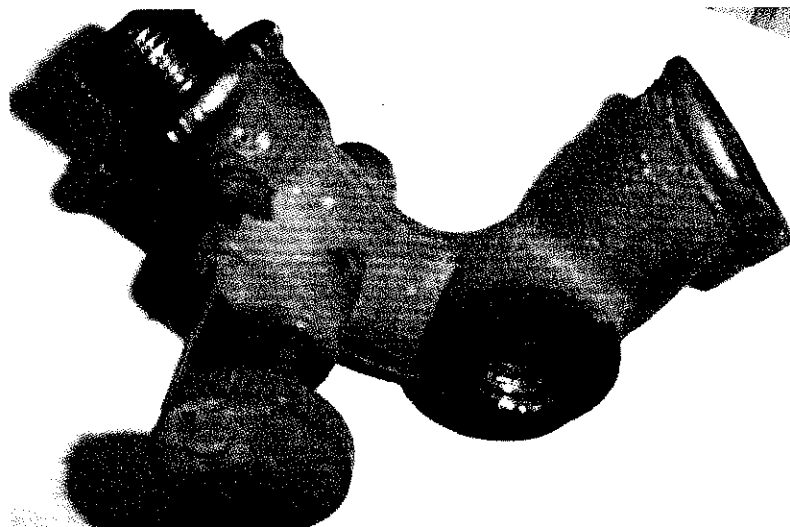
Shipped From
a City Near You
as Shown Above.

Burn Natural, Artificial
Gas or Gasoline



Above, Picture #1: 1916 Sears, Roebuck & Co. ad for Economy engines outfitted to run on natural gas, artificial gas or gasoline. No other literature showing this style of Economy engine has been found.

Right, Picture #2: "J" style mixer with additional threaded port clearly visible. It's unknown if this mixer was originally made to equip Economy engines to run on natural gas.

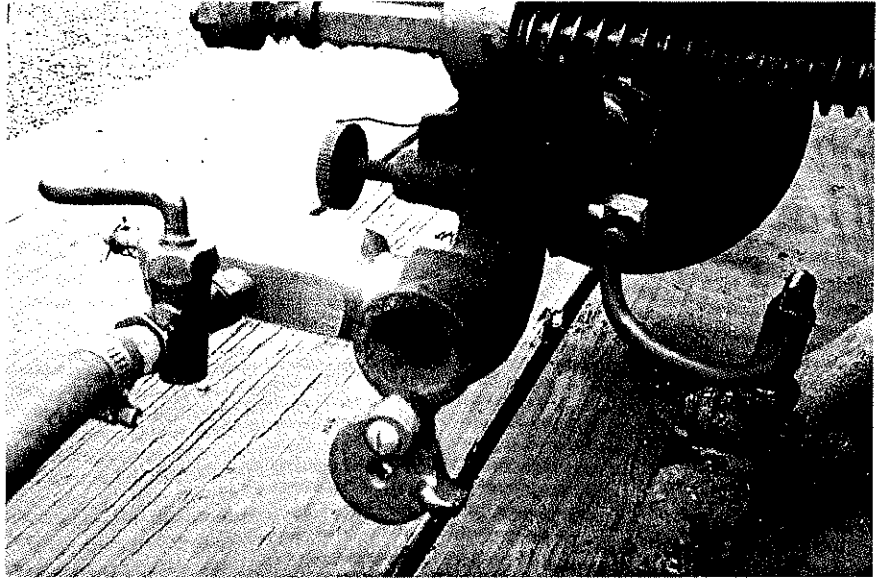


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spring during the engine intake stroke. The gas supply comes in through a hand valve into the chamber where the valve is.

Now comes the big question. Does it work? W-e-l-l, it works, but not with the consistency I would like, so it's back to the drawing board and fiddling around with the gas pressure, gas adjustment and return spring tension. Surely somewhere out there someone has – or has seen – the genuine gas attachment for this kind of mixer.

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Picture #3: "J" style mixer with adapter for natural gas or propane.