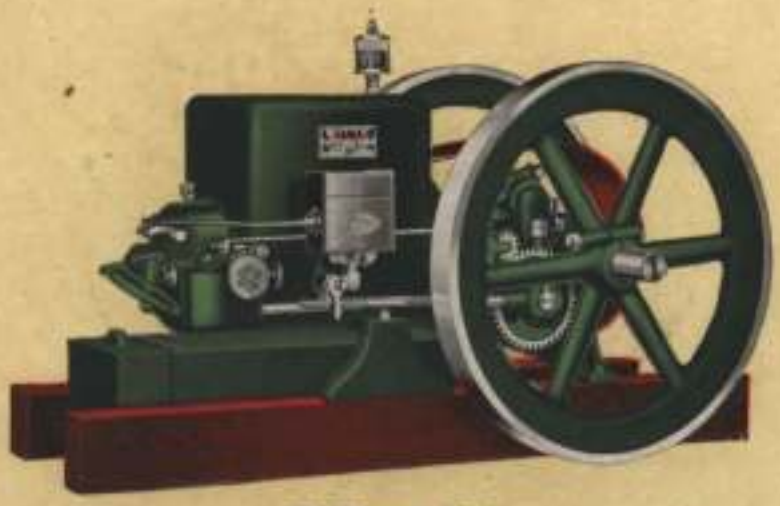
WITTE ENGINES

also

Power Saws

and

Pump Outfits



57 Years Old

Sold Direct From Factory to You

PLEASE NOTE

We have forwarded your inquiry direct to our President, Edward H. Witte, at Pittsburgh, Pa. He will write you at once. Price list is enclosed with this catalog.

WITTE ENGINE WORKS, KANSAS CITY, MO.

INE WORKS

CITY, MO.

SAN FRANCISCO, CAL.

A.)

WITTE Engines

STURDY DURABLE

The Home of the Witte Engine

The lowest priced, high quality throttling governor, internal combustion engine that can be made to sell at a reasonable price.

SOLD THE WORLD OVER

Direct from Factory to You

Ed. H. Witte

A Personal Message

from the Builder *of*

WITTE Engines

IN 1870—57 years ago when August Witte, a young machinist, started a small shop he never dreamt that his son would later expand that small business to its present proportions—200,000 WITTE Engines in daily, world-wide use, and a manufacturing capacity of 50,000 new engines per year.

He never would have believed that its product would become world renowned and sold in every nation on the Globe. It would have required some imagination to think that his son would be able in turn to leave to a grandson such a legacy of Honor and Service to Mankind as the WITTE Internal Combustion Engine.

And, although I have devoted almost my entire life to the building of WITTE Engines and have acquired far more of this world's goods than I can possibly ever use, I now feel that I cannot leave it. There is a Romance in it and I love the work, also I feel a deep sense of duty to the users of my product, the people who so liberally aided me in my earlier years and finally I must see that there is turned over to my son a respected "Name and Product."

I have always striven to build the best farm and industrial engine that it was possible to build at a reasonable price. There are, therefore, both cheaper and poorer ones on the market. I have only sympathy for those who feel obliged to buy the cheapest, even though the cost is usually within 5% of a WITTE, but I have no patience with those who try to form an opinion of what a good engine is from a small pamphlet or a quarter page catalogue description. Such people, unfortunately, usually suffer great losses later in the shape of lost time or paying for higher priced fuel than necessary and miss the good service of a WITTE Engine long after I have forgotten the small profit I might have earned.

Although I sell by mail I am not what is usually termed a mail order house. I run a factory, not a department store. I make my engines and every part thereof from the pig iron, bar steel and other metals. I do not go out on the market and buy my engines for a "price" and then add 25 to 50% on top of that. When my engines pass the last test floor and are crated, I know what they cost me and I only ask a mighty small profit above that when I sell direct from the factory to you. I want to say right here that I neither do, nor will sell my engines to a "mail order house." It cannot be done because I furnish high grade materials and a superior class of workmanship, and to compete with my engine they must give you an engine with far cheaper materials and workmanship, because they still would have to add their profit and it is a well known fact that notwithstanding these low priced engines, the WITTE Engine, while of higher material and higher workmanship, costs but little if any more. That's however, only because of the efficient way in which I make and sell my engines.

It is well known that it usually costs more to sell an engine than to make it, hence I spend just as much time trying to reduce my selling costs, as I do with the making of the engines by high speed automatic machinery.

Then again I found that I could not afford to allow a dealer to add from 25 to 50% to my selling price. I found that I could not afford high priced salesmen with their hotel bills and traveling expenses. I also discovered that a salesman could only call upon a very limited number of people in a day, and whenever I was buying anything I never did like the idea of a high pressure salesman talking me into something I really didn't need; so I

57 Years of Honest Engine Building!

In 1870

57 Years Ago

TODAY!

made up my mind long ago that I would stick to the little old red 2c postage stamp. It is the cheapest known method of salesmanship and I can reach 2,000 or more customers a day, and what is far more important, my customers can then in the privacy of their own homes or their own offices, select from a carefully worded and carefully illustrated catalog like this one, just what they know they absolutely need and nothing else. I do not need other people's money nearly as bad as I need their friendship and good will, and I cannot keep friendship and good will by selling a man something he really doesn't want.

I sell direct from the factory to you, and only ask the one small maker's profit on engines made by mass production methods. There is no dealer's profit in my price. There is no salesman's salaries, traveling expenses or hotel bills.

Andrew Carnegie, the steel king, once said, "Put all your eggs in one basket and then **watch that basket.**" Long ago I thought that was a mighty good motto, hence I haven't got a cent invested outside of the Witte Engine Works. All my life I have never made anything else but WITTE Engines. I know every foot of the five acres of machine shop and foundry. I know nine-tenths of my men by their first names, because they have been here year after year. The making and selling of gas engines is to me just as easy as the pumping of water with a good gas engine and pump. I have a one and a half million dollar factory with not a cent of outside capital, no bonds nor debts, but every dollar working hard for you and me. I do not need any high, white collar men to tell me how to make an engine or how to sell it. They would sure cost me a lot of money, and of course in the end **you** would have to pay for it.

I have been in this business long enough to see hundreds of other gas engine makers come and go, for between making imperfect engines and trying to meet my prices and quality, they sure had a rough road of it, and all of them ended either in the hands of the banks or they "threw up the sponge" in disgust. While our little old shop of 57 years ago, illustrated above, has grown into the great factory shown above.

That all makes me believe that I have been on the right road all these years, and if you don't think so, just come in to the factory some day and stand on the test floor where I usually "rubber-neck" around, and see some dear old friend that bought an engine 40 years ago come in for a few repairs and spy me there in my shirt sleeves. You will think differently when you see him come up with a grin and say, "Why, hello there, Ed!"

I want you to read my catalog. I have tried to make it as complete as possible, telling you in my own simple way how and why a WITTE is best. If I haven't convinced you, write me frankly just what more I can say.

Sincerely yours,

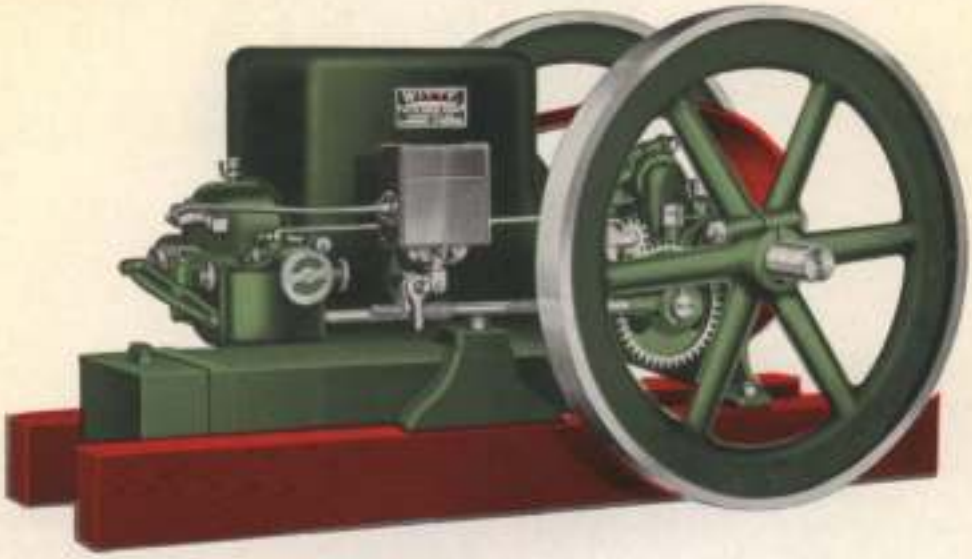
Ed. H. Witte

A High Quality Engine *At Factory Prices*

The WITTE Standard

All-Fuel, Throttling Governor

Internal Combustion Engine



The 1½ to 12 H-P. Type "B" Engine

Used also on all 1½ to 12 H-P. Combinations

Points of Superiority

1. The simplest and easiest understood American Engine built.
2. An engine that will run on the cheaper fuels.
3. Medium weight for easy transportation.
4. Standardized for mass production.
5. Absolute interchangeability of parts.
6. An efficient and close regulating Throttling Governor.
7. The economical "Valve-in-the-head" motor type.
8. WICO Magneto equipped—jump spark ignition.
9. Easy to start and run.
10. Removable hard die-cast bearings.
11. Semi-steel cylinders, cylinder heads, pistons, and carburetor.
12. Safe and dependable suction feed from fuel tank.
13. Heavy fly-wheels, sturdy spokes and hub.
14. Spare parts and repairs forever.
15. Built by a specialist who makes nothing else.
16. A "one profit" engine.
17. Sold direct to the user.
18. Will last a lifetime.

57 Years In Business—You Take No Risks

A Standard All-Purpose Engine

Built to Fill Every Power Need

1½ to 12 H-P.
Type "B"

On Skids
Medium Weight
Semi-Portable

The typical Farm engine

Stationary, Semi-Portable, Portable, Pumping or Sawing

A smooth, quiet running engine of the Throttling Governor type of medium weight, makes this an ideal power for Rural work, whether on the farm, ranch or in the small town, and is cheaper power and more dependable even where electricity is obtainable.

The Type "B" Engine with its hopper cooled cylinder, of somewhat higher speed, has altogether taken the place of the slower speed, heavy constructed, large tank cooled engines of the past which required a heavy and expensive foundation.

The WITTE Engine has become the universal "Standard," for besides being so adaptable to all conditions, it is WICO Magneto equipped and because of its throttling governor and suction feed carburetor, taking fuel from below the intake valve, it becomes at once the safest and cheapest engine to operate, as it works upon every grade of fuel known the world over.

These fuels are far too numerous to mention here, but consist of almost everything from gasoline down to a high grade of crude oil, also all the various gases.

It is a well known fact that the real cost of an engine is not measured by its first cost, **but** by the cost of the fuel which it has consumed, together with its freedom from repairs and expensive breakdowns.

If for no other reason than the fuel saving, WITTE Engines are in a class by themselves, as is proven by the fact that it has become so popular all over the world, where gasoline is expensive and the lower grades of fuel only are obtainable.

The farmer is using thousands for all the various jobs around the farm, sometimes as a stationary, sometimes for more or less of a portable job, and millions of dollars have been saved to the American farmer in wages alone.

This Type "B" Engine is not only used as an engine however, but on every combination shown in this catalog, for sawing, pumping, feed grinding, shelling, etc.

Many manufacturers are also using this same engine in 1½ to 12 H-P. sizes, by ordering in large quantities without the skids below the frame and mounting on machinery of their own for such purposes as spraying of trees, for portable pumps, hoists, potato diggers, fire protection, and a thousand other purposes. There is absolutely no better engine than this medium weight WITTE, and the fact that manufacturers will order them in thousand lots per annum year after year tells its own story of serviceability and dependability.

The engine has extended crankshaft on the far side for the regular pulley, and though used for starting purposes generally, a pulley may also be attached on the near side.

Because of mass production and of standardization, price on the Type "B" 1½ to 12 will be found very low when the quality and high class of workmanship in this engine is considered. No deviation from specifications of permanent parts such as cylinder, crankshaft, fly-wheels, etc. is allowable except in very large lots.

SEE PAGE 46 FOR SPECIFICATIONS

"Sterling" on Silver—"WITTE" on Engines

A Standard All-Purpose Engine

Built to Fill Every Power Need

1½ to 12 H-P.
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SEE PAGE 46 FOR SPECIFICATIONS

"Sterling" on Silver—"WITTE" on Engines

The Aristocratic

Type "C" Sub-Base Engine

The Type "C" with Fuel Tank in Base

Same as Type "B" Engine, but on Cast Iron Base Sizes 1½ to 12 H-P.

A beautiful, self-contained job

For installing on cement or wood floors

When a WITTE Engine purchaser does not mind the small extra expense nor the additional weight of a cast iron base below the regular Type "B" Engine, then the Type "C" Engine herewith illustrated makes the ideal combination, for the steel fuel tank is securely fastened within the base a small distance up from the floor. The supply pipe is attached to the bottom where there is a strainer for the removal of any sediment which may enter.

The satisfaction that a customer has of an all iron engine and the beauty of the job is well worth the small extra difference. Remember the **engine** details are exactly the same.

Running a Pumper in Holland

As many of our customers have remarked, it is the most aristocratic engine they have ever seen, for the base with its enclosed tank gives the regular "B" engine an altogether different appearance. It looks more like an engine—looks much heavier though it does not weigh so very much more after all.

The fuel tank is filled from the outside at the spout shown below the magneto. When the tank is full the fuel will begin to show in the spout which has a snap cover on it, and is large enough to not require a funnel.

Type "C" engines are high enough so that the fly-wheels clear the floor by from 1 to 2 inches and when once securely bolted to a cement or wood floor or to a concrete foundation, make a very handsome appearing installation for electric lighting or other indoor work, particularly for shows, exhibitions, etc.

A Type "B" engine may be converted into a Type "C" at any later date by merely adding the tank, base and supply pipe and attaching them to the regular Type "B" Engine after skids are removed.

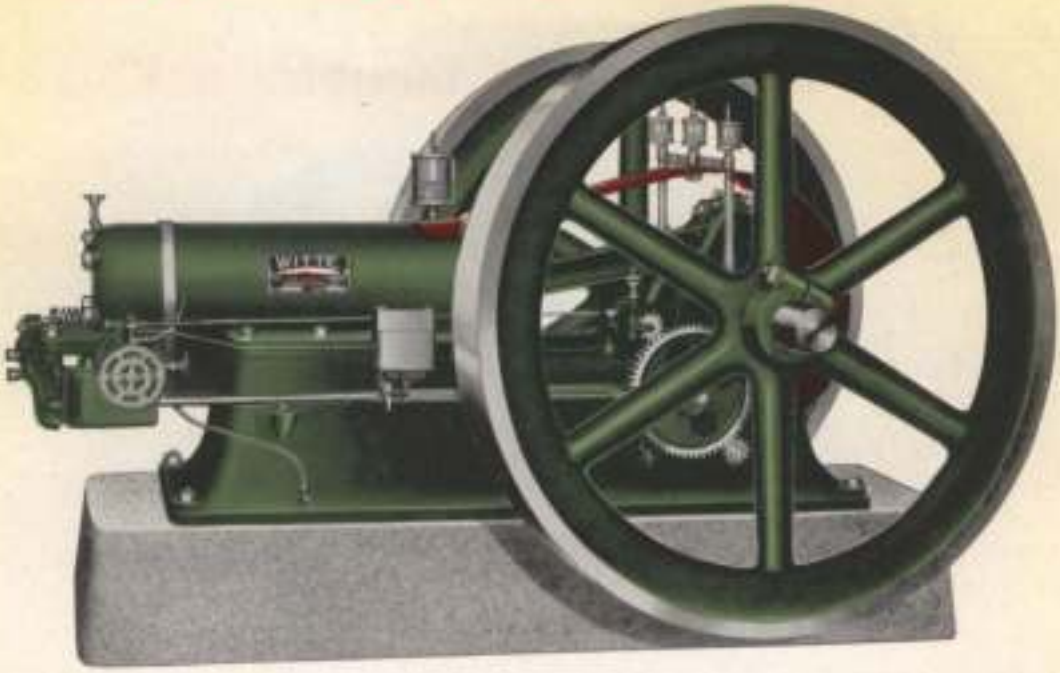
SEE PAGE 46 FOR SPECIFICATIONS

Satisfactory performance is remembered long after the price is forgotten

200,000 WITTE Engines Are In Daily Use

For Heavy Duty and Industrial Work

Massive 20 and 30 H-P. Throttling Governor Engines



WICO Magneto Equipped

Jump Spark Ignition

Operates on Any Clean Liquid or Gas Fuels

The Heavy Duty Engine is the Daddy of the whole WITTE line. It represents the last word in a Real Heavy Duty Engine, for every class of fuel from gasoline down to good grades of crude oil and all Gases

In this engine have been incorporated 57 years of experience, of refinements and improvements, as well as the knowledge which continuous building of engines gives. It embodies, therefore, every known improvement on the market.

The massive engine bed is deep for strength, and large for the heavy fuel tank therein.

The main bearings are extra large and wide. The crank is unusually large and of forty-five carbon hammered steel, with square bells.

The hard die-cast bearings are unusually large and heavy, in both main bearings and connecting rod.

The engine bed is machined on top, the cylinder below, where it attaches to the bed by means of eight large studs and nuts. They are tongued into each other so that they cannot possibly get out of line.

Both valves are mechanically operated and the heads are made of semi-steel, while the stems are made of high carbon bar steel.

Both valve rocker arms are carefully machined and equipped with grease cups, and hardened adjusting screws.

The "I"-Beam Connecting Rod is unusually heavy and well ribbed.

The gears are quite wide and the large one is made of semi-steel, while all the others are made from bar steel.

Both inlet and exhaust cams are separate from the large gear and are made of forged steel hardened, ground and keyed on.

A substantial twenty-four-hour oiling system is placed over the three main bearings, with large lubricators, the same as on the cylinder. A smaller oil lubricator is on the main governor bearing.

Water feed attachment is furnished on the cylinder in case same is required for water injection on account of very low grade fuel.

Automatic oiling devices from the cylinder lubricator to the piston pins.

Geared centrifugal water pump for cooling cylinder and head is securely fastened within the bed and driven from the valve gear. This insures absolute equality in temperature of cylinder and cylinder head.

A double ported breather valve is attached to the carburetor. Fuel tank is filled through the spout from the outside, and fuel suction is from the bottom of the tank on the outside, where a strainer is placed for easy cleaning.

Pulley can be used on either side of engine. Heavy oil shield over rod and crank bells.

Unusually heavy fly-wheels, spokes and hubs complete this up-to-the-minute engine.

SEE PAGE 46 FOR SPECIFICATIONS

The 20 H-P. to 30 H-P. Extra Heavy, for twenty-four-hour service in mills, factories, oil fields, or irrigation, where every stroke must count like a prize fighter's punch

Interchangeable Parts Without Hand Fitting

All WITTE Engines

Are Equipped with

WICO High Tension Magneto

The only magneto made with a single moving part

That part works vertically only one-eighth inch

An internal combustion engine with a dead igniter is as dead as a human being without heart action. While all other parts of an engine may possibly function correctly, once the igniter fails the vital spark ceases and the engine is dead. WITTE Engines having been made for over half a century, it is quite natural that Ed. H. Witte should have passed through all of the various steps of ignition from the first inception of an internal combustion engine. He has used batteries of every conceivable form and type. He has used current from dynamos as well as batteries and dynamos combined. He has used the old hot tube and also the hot bulb. He has built Diesel engines of self-ignition. He has used every imaginable magneto now on the American and European market. This includes the rotary, the oscillating and the vertical movement type. On a rotary or oscillating magneto if the bearings wear only a hair's breadth, the armature will immediately cut out and short circuit.

An oscillating magneto requires also a tripping device, a source of endless trouble because the tripping points wear and change in their functioning.

Vertical, or WICO type of ignition, is upon the well known magnetic principle. A bar of steel moves only one-eighth of an inch up and down. There is absolutely no wear to this. The surfaces merely contact and do not slide or rub. When the contact is broken, the hot, fat spark occurs. There is nothing to replenish, nothing to renew, nothing to adjust, nothing to look after, and only one oil hole.

WICO Magnetos will work under water, in oil, 60 below zero, 150 above. They will work below sea level and have worked 20,000 feet above. And besides the magneto itself, the most wonderful thing about this mode of ignition is the extreme simplicity of the magneto drive from the valve gear on the WITTE Engine. This is positive, regular and dependable, yet when it is desired to advance the spark it is adjustable by means of one single nut. For starting purposes there is a spark retarder and the moment the engine is started the retarder is placed into running position for the remainder of the run.

A WICO Lasts Forever

The WICO is perfectly noiseless in its operation, does not wear, and consumes no power.

WITTE Engines do not require frequent adjustment of ignition.

Should the WICO Magneto ever fail, or should the distant WITTE Engine user ever desire to carry a spare, he may do so and attach the same in a minute, for there are only two screws to attach it to the cylinder. Absolute duplication of parts make this a simple matter. and some WITTE users in foreign lands who have not yet learned of the reliability of this wonderful magneto, do order a separate magneto for spare.

Quantity Production Makes Low Prices

Burns All Ordinary Fuels

Does All Jobs Economically

Why burn gasoline in an all-fuel engine? Gasoline costs three times as much as distillate which contains as much power and which you burn under your house furnace, twice as much as your kerosene lamp fuel and sometimes five or six times as much as other fuels that are obtainable in your market, to say nothing of natural gas which may cost almost nothing at all. The WITTE Engine is in a class all by itself for the reason that no matter where sold, no matter when shipped, no matter how old it may be, the user may order a mixer that will enable him to use almost any grade of fuel for internal combustion engines.

There are about 10 liquid fuels in the U. S. and five gas fuels. They range in the liquid, from gasoline to good crude oil, and in the gas from natural to producer charcoal gas. The cost per horse-power will vary from $\frac{1}{10}$ of a gallon of gasoline per horse-power for ten hours, clear down to almost nothing per day for natural or charcoal gas.

The WITTE is not built for today. It is built for all time, its life, after 57 years of use, has not yet been developed, but in that time Ed. H. Witte has seen the price of gasoline rise from 2¾c per gallon to its present high price, and he has been obliged to design the engine of later years so as to use the fuel of the future rather than of even the present, but while doing this has always borne in mind the point that no matter when it may be wanted, a mixer or a new part, a repair or a spare part for possible break down, or a change from one fuel to another, should be obtainable at any time.

There are some WITTE Gasoline Engines today using gas at 10c per 10 hours, that were built for gasoline 40 years ago and today would cost the operator $5 or $6 per day for fuel alone. In a certain place in Mexico where gasoline is 60c to 75c per gallon and would cost on a 30 H-P. engine $15 per day, the operator is using charcoal gas at less than $1 per day. In Cuba a WITTE on alcohol costs about one-tenth what it would on gasoline. In British India the WITTE Engine operates on kerosene (paraffin) at less expense than it would on gasoline (petrol). In far away Japan where money is worth 18% per annum and a Yen, though only half as much as a dollar, represents one day's labor for a mechanic, the WITTE Engine is used successfully and economically by thousands upon thousands of satisfied users because it operates so successfully on the cheap grade of kerosene, yet gasoline is 75c per gallon. Even in Bolivia on the West Coast of South America at an altitude of 18,500 feet, WITTE Engines are running on so called gas oil in conditions under which a gasoline engine could not exist. At such high altitudes the air is so rare that the compression on WITTE Engines is adjusted to compress much higher than the usual amount, though it is still possible to use the cheapest of fuels and to operate successfully in the hands of native Indians, wholly inexperienced in the operation of internal combustion engines.

There are thousands of WITTE Engines now using the cheaper fuels that were built only for gasoline 30 to 40 years ago. They have been fitted with the new mixers.

Principally on account of the efficient WITTE mixer there are in Japan alone over twenty imitation WITTE Engines made, and yet Japan is one of our best customers.

European Business

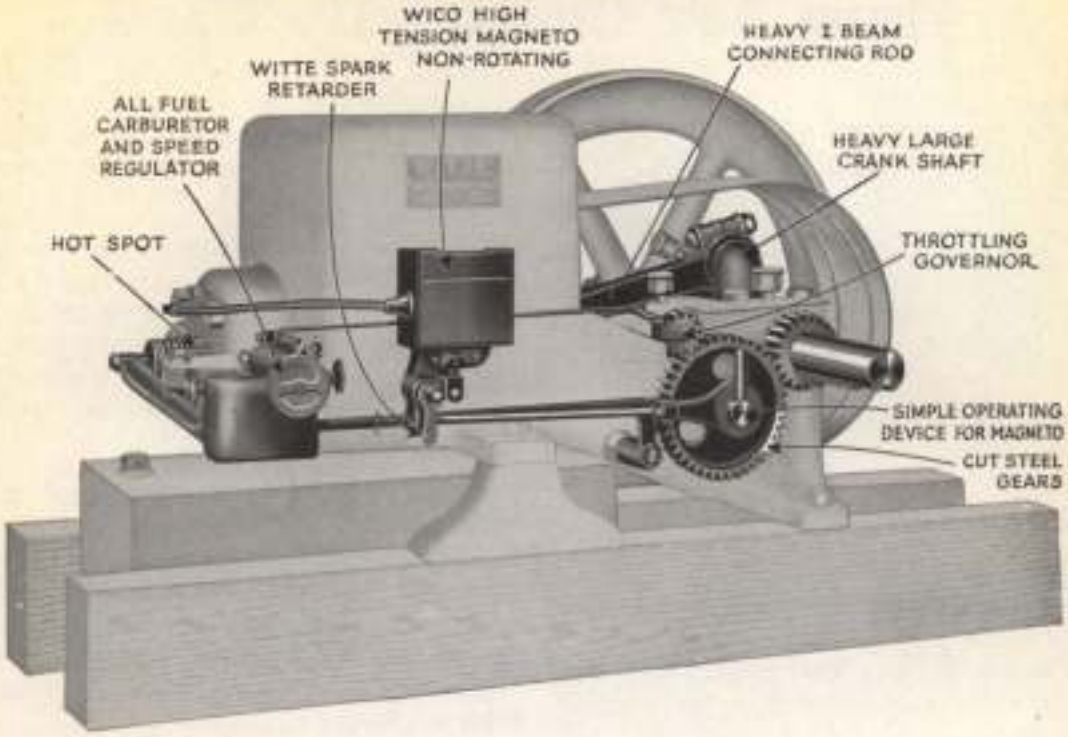
The European business alone of the WITTE ENGINE WORKS has grown to vast proportions, largely because the engine is capable of being operated on the ten or more low grade prevailing fuels, and that too in direct competition with some very low prices for electricity generated by water power, and Diesel engines, and sold also in these countries under the fiercest possible competition with local manufacturers.

WITTE Exhibition Bulgaria

There's Only One Profit in a WITTE Engine

The Heart of the WITTE Engine

The serviceability of an internal combustion engine is dependent as much upon the certainty of ignition as a human life is dependent upon the heart



The WICO Magneto, an absolutely perfect instrument and mode of ignition, is herewith shown with the WITTE mode of operation. The simplest and most dependable device ever invented for the production of a fat, hot spark, and only one of them but at the correct instant.

While it is true that jump spark ignition is the most dependable because even a good spark plug is obtainable at a reasonable price, yet the current to fire the charge must be generated, and the long experience of the Witte Company has conclusively proven that no battery and no rotating magneto armature, whether continuously rotating or merely oscillating, can ever equal the wonderful efficiency of this simple little magneto on which there is only one moving part working one-eighth of an inch and that vertically. There is absolutely no heat, no friction, no missing, just a large silent spark emitted therefrom. It is the most wonderful invention of the age. It is in a class by itself, for it has neither a peer nor an imitator.

A small lever pushed to the left retards the spark for easy starting, just as in an automobile, but as WITTE Engines always run at one constant speed after starting, it is only necessary to push this lever to the right after the engine is once started. And to guard against neglect to do this, by an ingenious device it is so arranged that should the user forget to push the lever to the right he is immediately **warned** of that fact by failure of the engine to develop any appreciable power. This is quite an improvement over previous experiences and years with other magnetos.

For many years now nothing but the WICO Magneto has been used on WITTE Engines, and since the first one was adopted no other mode of ignition has been used.

Of equal importance however to the magneto, is the carburetor, the place where cheap liquid fuels are converted into highly explosive gases, or where natural and other gases are properly mixed where they enter for explosion within the cylinder. This carburetor is so attached to the cylinder head that any time in the life of the engine it may easily be removed and replaced with a new one, or with a change from one class of fuel to another should **far** different fuels become popular. On the many grades of present day fuels **no** change whatsoever is necessary, when running on gasoline fuel is taken direct from the tank. When running on any of the cheaper grades of fuel these are placed in the usual tank and only a priming charge of gasoline for a ten-minute run is placed in the cast tank connected with the left-hand valve of the carburetor.

50% Margin of Safety

Secured By Using Better Basic Materials Than Are Ordinarily Used

Semi-Steel Cast Iron

Almost everyone knows what ordinary cast iron (Pot metal) is, that it is not very tough because it is soft and the crystals are large. See sample under a glass. Most engine builders have experienced considerable trouble with porous cylinders, on that account.

WITTE Engine cylinders, cylinder heads, pistons and carburetors are all made of semi-steel. See sample under glass also, in which you will notice there are practically no crystals. Semi-steel is not only very much stronger but much harder than ordinary cast iron and finishes like polished silver.

WITTE Engines are long lived. We are almost the sole users of semi-steel for cylinders, and have used it now for many years.

Semi-steel is nothing new, consisting principally of proper proportioning of the mixture of steel and iron, by careful following of the metallurgist's instructions.

The days of half-inch cylinder walls in internal combustion engines, made of soft ordinary pot metal, are long past. Such cylinders require reboring every two or three years and are usually found on engines where the manufacturers are not up-to-date or where they have old-style models which they refuse to change to keep up with the times.

It is not alone in cylinders and similar parts, however, that high class materials may be used to advantage.

Some years ago a crankshaft with 20-carbon contents in it was considered about the right thing, but today WITTE crankshaft specifications call for 45-carbon.

Formerly a bearing metal which would wear well was considered proper. Today a very hard anti-friction metal is used so that when the hard crankshaft revolves in a hard bearing but little horse-power is consumed in friction, and the crankshaft and bearings may be made smaller because they are of far stronger and harder material.

Compare for an instant, the bending qualities of a 15 to 20-carbon piece of baling wire with that of the 45-carbon penknife blade. Think of the savings in a year due to less friction alone. Imagine that your automobile crankshaft and bearings of today were as poor and as soft as they were 10 years ago. You would still be doing only 10 miles to the gallon and 20 miles per hour.

The results are that while WITTE crankshafts and bearings may seem smaller, the truth is they are very much longer lived, stiffer, harder and stronger.

There are over 50 different kinds of other materials used in WITTE Engine construction without going into details on smaller parts. These consist of special materials for valves, springs, piston pins, rustless steel tanks, etc.

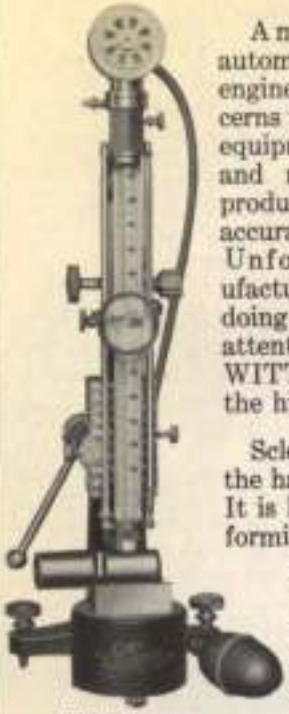
Such materials cost real money, but they are required for perfect construction and long life and durability, and certain parts must be properly heat treated and hardened.

The Cupola Where Semi-Steel is Mixed and Treated

A High Quality Engine At Factory Prices

All Parts Interchangeable

Standardization of Every Operation, Automatic Machinery and Precision Instruments Insure Uniform WITTE Quality



The Sclereoscope

American machinery, notably automobile and internal combustion engines, when made by large concerns who have the means and the equipment for practicing the latest and most up-to-date methods of production, are well known for their accuracy and interchangeability. Unfortunately, many small manufacturers have not the means of doing this, but we wish to draw attention to the fact that in the WITTE plant this is carried out to the highest possible degree.

Sclereoscopes are used for testing the hardness of hardened steel parts. It is highly important to obtain uniformity in hardening, and no other method can be depended upon.

Expensive Swedish Johannson Gauges, made now by Henry Ford and measuring to the one ten-thousandth of an inch in every conceivable form are used for the making of tools, dies, gauges and other equipment wherewith to measure the finished production as it is produced. These gauges, however, are so delicate and valuable that they are never allowed in the hands of others than the tool makers, nor out of the tool room. They therefore become the master gauges by which all others are set or to which all others are made.

Electric pyrometers for indicating the temperature of a white hot furnace are absolutely necessary in order to obtain the proper temperatures for hardening or annealing, or even for the melting of iron or baking of casting cores. Here again human intelligence and vision are superseded by mechanical devices.

The Cylinder Gauge

Speed regulators are used throughout the plant for obtaining the correct running speed of engines or machinery. They are also used continuously for obtaining the correct cutting speed of the various tools, for there are over fifty various metals used in the construction of a WITTE Engine.

Johannsen Gauges

Automatic machinery is so largely used throughout the plant that it is well nigh impossible to cover this subject except in general. However, automatic machines are used for the making of all screws, studs, bolts, nuts, collars, and other round parts, including castings, from nothing up to a diameter of five inches. A large majority of these parts are made from bar steel of various qualities. There are also automatic gear cutters, planing, milling, grinding, drilling and polishing machines. There are die casting machines for making the hard main bearings and connecting rod molds and an innumerable number of smaller operations.

There are likewise hundreds of semi-automatic machines which require an operator but in which the human skill required has been almost entirely transferred to mechanical form, making it impossible for the operator to make an error.

Speed Indicator

Absolute interchangeability of parts is so important in the WITTE plant that we need only mention the fact that engine parts made today may not be used for five or ten years from the bin in which they are stored, because they are made in large quantities, and while generally used for the assembly of new engines they will in turn be used from time to time when an order for spare parts, or possibly repairs in years to come, comes to us from a local user or from a Japanese, Australian, Siamese, European or African agent. It can, therefore, be readily seen how necessary it is that parts once made **must fit all engines sold.**

57 Years in Business—You Take No Risks

The Best Built Engine is no Better Than Its Component Parts

1½ to 12 H-P.

20 and 30 H-P.

ENGINE BEDS

WITTE Engines are built like typewriters, adding machines, cash registers and automobile engines. Parts likely to wear are made intentionally small so as to be replaceable at minimum expense.

WITTE cylinders are made of semi-steel. The bore, when carefully reamed and polished, has the appearance of polished silver. It is therefore not only very close grained, tough and hard, but almost absolutely indestructible. In the cylinder bed are the housings of the two main crank bearings, also the governor bearing.

Cylinder

1½ to 12 H-P. cylinders being much smaller are cast together with the bed, but on such large and heavy engines as 20 and 30 H-P. the cylinders and bed are cast separate and bolted together at well machined surfaces.

The WITTE carburetor is on the well-known automobile principle, having a valve wherewith to adjust the higher grade fuel on which to start the engine, and on which to operate it for a few minutes before opening the valve of the lower grade fuel coming from the tank. The purpose of this start is merely to warm the carburetor, and the purpose of using the lower grade fuel is to economize on fuel cost for the balance of the day. This carburetor has the usual breather valve which, however, requires no adjusting. There is only one point to adjust and that is the valve for admitting the fuel. This is marked and easily handled.

The crankshafts of WITTE Engines are well made of 45-carbon, open hearth steel. It is no longer necessary to have such large cranks as formerly, because of the higher grade of steel used. All cranks are carefully forged, double heat-treated in oil so that the entire crank shall be of uniform grade and hardness. They are then carefully machined and ground.

Crankshaft

Connecting rods are made of a special metal alloy resembling steel. One end is bored for the hard die-cast bearing, where it is adjustable by means of metal shims and special bolts. The other end is bored and clamped tight to the piston pin, where there is no movement.

Connecting Rod

Pistons and rings are both of semi-steel construction. On the smaller engines there are three rings. On the larger there are four. Pistons are as light as possible, quite long and ground to mirror finish. A liberal number of oil grooves are furnished for oiling.

Piston pins are of 30-carbon, open hearth steel, hollow, hardened and ground to mirror finish. They are clamped tight to the connecting rod and are automatically lubricated from the cylinder lubricator.

Piston, Pin and Rings

Cylinder heads are made of semi-steel, carefully cored so as to get the greatest amount of water cooling space, which gives excellent protection against overheating of the valve. The construction of the WITTE cylinder head is such that there is a hot spot between the valves where the incoming gases may be superheated before they enter the cylinder and after vaporization has taken place in the carburetor. It is the better construction of the cylinder head and carburetor, which allows WITTE Engines to be used so successfully throughout the world on the cheaper grades of fuel universally used.

Cylinder Head

"Sterling" on Silver — "WITTE" on Engines

The Few Simple Parts of the WITTE Engine Make It Economical and Easy to Operate

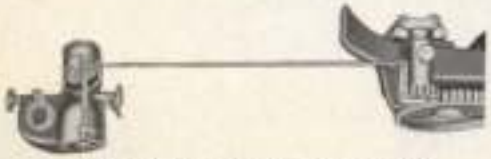
The governor of the WITTE Engine is of the centrifugal, fly-ball type, working horizontally, having no springs whatever in it and working direct upon the balanced carburetor butterfly valve. This governor is driven by means of a steel gear. All moving steel parts are hardened. It is lubricated by a grease cup and the slightest increase or decrease is instantly transmitted to the carburetor valve, which accounts for the high efficiency of the WITTE Engine.

Fly-wheel

Like all other internal combustion engines, the WITTE has three main bearings, two in the engine bed with its crank, and one in the large end of the connecting rod. These main bearings are carefully bored and reamed, in both bed and rod, to receive hard die cast bearings, made of the best anti-friction metal known. These bearings are secured into their places, but are easily removable and replaceable at a very slight expense.

Die Cast Bearings

It is only the highest class of internal combustion engines and of automobile engines in which such bearings are found, but it is necessary that they be put in WITTE Engines, because WITTE Engines sell all over the world and the maker never knows where they go nor how long they will be used, nor does anyone know what minute some grit may enter a bearing if once uncovered, or when grit may even enter the lubricant used, hence it is of small consequence to the WITTE user should his bearings burn out or cut out, as they are instantly replaceable.



Speed Retarder and Power Regulator

The fly-wheels on all WITTE Engines are of the split hub type bored from 5 to 10-1000 smaller than the crankshaft. When attaching it is only necessary to drive a chisel or wedge into the crack between the spokes and the wheel can be slipped on in a moment's time. The chisel is then removed and the wheel is clamped by its own hub, but to be doubly safe the large bolt is then tightened to hold it. This improved fly-wheel hub construction is of immense advantage over the old small tapered key, whereby so many users have broken the corners out of the hub or have had trouble getting the key out at all. WITTE fly-wheels always run true and they always stay "put".

Square Tank

Fuel tanks are now made of galvanized rustless steel. The ends of the tank are stamped with double acting dies to exact shape, and the major part of the tank is then made out of one piece of steel, all corners and seams riveted and soldered. A drain plug is furnished at one end, and a filling plug at the end above.

This tank is supported on bands some distance from the floor and well protected between the skids on Type "B" engines.

The same general construction is followed on Type "C" Engines, but the tank is within the cast iron base and is filled from the outside spout.

There are only two operating valves on a WITTE Engine, the one is the intake where the fresh gases pass in, the other is the exhaust where the hot gases pass out. Both are alike in size and style with a minor exception.

Pulleys on WITTE Engines are attached by means of a set screw and key, and go usually on the left or far side of the engine, but may also be attached to the right side.

WITTE Engines have never used a pulley bolted to a fly-wheel spoke, because such construction require special pulleys at great expense and great delay. A pulley may be purchased for WITTE Engines in any part of the world, though the regular pulleys come with the engines.

Carburetor

200,000 WITTE Engines Are In Daily Use

1001 Uses For WITTE Engines

We are constantly being surprised at the varied uses to which WITTE engines are being put in all parts of the world.

Just when we think we know all the possible uses to which a WITTE engine can be put, a customer writes us and tells us of a new use he has found for it, and the WITTE always makes good.

Just a few of these many and varied uses are herewith illustrated. Many hundred more were not available in photographic form, but some of their original and unsolicited testimonials follow. For instance from the oil fields of Venezuela comes the following letter of recommendation:

"We have at the present time, nine 15 H-P. and two 25 H-P. WITTE engines in general use in the Maracaibo lake region. These engines as you no doubt know are running light rotary drilling rigs that we have in operation drilling test wells for geological information.

"The 15 H-P. engines are required to operate a 4x6 belt-driven mud pump, a light draw works, and a 12" rotary. The outfits of this size have been drilling to a depth of from 1200 to 1450 feet and work twenty-four hours a day. The drill stem is 3", 1325 lbs., making a total weight not including tool joints, bits and other tools, of from fifteen to eighteen thousand pounds. The time required to drill such a well is about two weeks and then the rigs are dismembled and moved to a new location. The twenty-five horse-power engines are pulling an outfit with a larger pump and have drilled to a depth of 2235 feet, using the same size drill stem. The time required to reach this depth was about six weeks, including shut-down time for cementing a string of pipe.

"The engine is in perfect condition and the repairs required amount to practically nothing. The WITTE engines on all of the other outfits running have given equally as good service, and we wish to thank you for having put out an engine that has, so far, saved us from any worry whatsoever in that phase of our drilling operations.—VENEZUELAN SUN, LIMITED, J. W. De Bampe.

In a marble quarry at Quincy, Ill.

Using the WITTE to cut marble in a big marble quarry at Quincy, Illinois, is being satisfactorily done by J. H. Mathis, Jr., who says that it operates his saws and grinders in first-class shape.

The Price tank at Plainview, Texas

Then we hear of a WITTE being used, as the photograph shows, as an irrigator, forming a vast tank in the center of a Texas sage brush plain. Mr. Hauch of the Price Brothers Lands at Plainview, Texas, says: "I have a pumping plant which I believe will handle 20 acres of land during the summer months. My small wells give me 60 gallons of water per minute and during the daytime we can handle lots of water, which we think will have no trouble to water one acre per day. I have a tank in which to hold my water 28x72 and four feet deep. It takes my little WITTE engine only three hours to add one foot of water in this large tank."

A coal mine at Buena Vista, Colo.

W. W. Holloway of Buena Vista, Colorado, uses a WITTE at the mines to keep an even flow of air coming and going through the mine shaft to keep the miners supplied with fresh air and to remove dangerous gases.

Chas. Schmatz, at Lelloy, Va., also uses the WITTE in a big coal mine, this time to raise and lower the cage into the mine shaft.

A seiner at Glass, Va.

Then we see a WITTE used on a boat as a seiner. Here is the letter that tells about it: "I told you that I would put your name on my boat which I did. We are using our WITTE engine for pulling large seines and we are well pleased. It is certainly a dandy and it has come up in every way to what you said it would."—BUCK BROTHERS, Glass, Va.

Howe's ferry at Hickman, Mo.

Here's Chas. Howe's ferry at Hickman, Mo. carrying vehicles across the river.

WITTE Engines Work Everywhere!

Irrigating at Big Wells, Texas

Joe McCarley runs an irrigation project at Big Wells, Texas, with a WITTE, as the photo shows. So does C. A. Mikuls at Atwell, Ga.

Mrs. Pohl at Bergman, Ark.

L. C. Kenton, of Foley, Alabama, uses a WITTE regularly as a sprayer for their fruit orchard, as does Herman Pohl, of Bergman, Arkansas. Mrs. Pohl seems to be doing all the work, however.

HONEY EXTRACTOR

I am well pleased with my WITTE engine. It certainly does wonderful work. I extracted about ten tons of honey with the engine, pump all the water for the farm that I need, use it to grind all of our feed and sawed lumber for several cedar chests. It does more for its size than any engine can do.—HARVEY H. FISHER, R. 1, Box 47, West De Pere, Wisc.

The Foley dredger in Louisiana

EVEN THE PRINTERS USE THEM

My WITTE Engine has been complimented by our best engine men here, it is termed "A Dandy." It is certainly a success. It pulls both newspaper and job press just as easy, and it likes to run like a boy likes to play marbles. A better engine is not made.—CHAS. TRESENRITER, Editor and Publisher The Ashton Leader, Ashton, Iowa.

Oil well at Liberty, Tenn.

Sheila Davis uses a big WITTE for drilling an oil well down at Liberty, Tennessee, and the outfit is performing perfectly.

FROM FAR AND NEAR

From far and near comes tales of the work the WITTE engines are doing: An air compressor in Mexico; a big dredger in Louisiana; a pumper in Buenos Aires; a saw mill planer in Georgia; a big factory in Mexico; and a thousand others testify to the great WITTE dependability. You need not have fear that the WITTE will not perform no matter what task you set for it.

HANDLES DIRT CONVEYOR

As you remember about four years ago I bought a WITTE engine and I am certainly pleased with it. I am using my engine on a mixer and will say it has never given me any trouble in the four years—always ready to go. I also have a 2½ H-P engine bought from you sometime back. I have it hooked to a home-made dirt conveyor, and say four men couldn't throw enough dirt on the belt to keep it full.—J. H. FIBLE, 714 Grand, Hannibal, Mo.

A blacksmith shop at Dix, Neb.

A blacksmith shop and garage at Dix, Nebraska, run by S. V. Johnson, gets all its power from a large WITTE and keeps busy all the time.

Vorbeck wood cutter in Ecuador

From down in South America, in Ecuador, Jacob E. H. Vorbeck, sends us a photo of a WITTE cutting up stove wood in great shape.

Quantity Production Makes Low Prices

What Your Neighbors Think of The WITTE Engines

From All Points of the Compass Come Testimonials to the Worth of Witte Engines

Wormwood distillery at Cassopolis, Mich.

RUNS WORMWOOD DISTILLERY WITH WITTE

I am enclosing a picture of the WITTE engine pumping water for my wormwood distillery. I am also pumping water for 5 horses, 19 head of cattle and 23 hogs. My engine will run for hours with but little attention. I have used it for more than a year and a half and I can recommend it as highly as any make of engine I have ever seen. It starts right off in cold weather without any bother.—JAY C. NORTHOP, R. 3, Cassopolis, Mich.

Wood cutter at Roseau, Minn.

BEST OF SIX ENGINES

I have had six engines in the last two years and at last I have found the one engine. I handle a twenty inch saw, also run my washing machine with your engine. I forgot the water in the hopper last winter, and it froze solid—it chipped the paint but no damage resulted to the engine. I'd hate to have this happen to a cast iron engine.—R. M. HOLM, Roseau, Minn.

Mill at Gleason, Wis.

IT SURE WORKS FINE

I am sending you a picture of my saw rig, from which you can see the big pile of heavy timber squared up with a 5 H-P. WITTE Engine. It sure works fine.—CHAS. C. KRUMING, R. 2, Box 70, Gleason, Wis.

Log saw in woods at Walker, Minn.

STUMP SAW—WIFE USES PUMP AND WASHES

It is the best outfit I ever owned to save hard work. My wife is using the engine every day pumping water and is going to run her washing machine. It is easy to start and runs like a top. I sawed all my stumps on 19 acres and a few for neighbors. I have sawed 156 in 5½ hours. Poplar stumps from 5 to 18". I would like to see the four men that could do that.—O. O. CHRISTIANSON, Walker, Minn.

RUNNING MILKER

The 3 H-P. WITTE I have running my De-Laval milker is doing fine. Now I want a 5 H-P. for ensilage cutting. Send me your price.—H. E. YOST, Bramwell, W. Va.

Sawing wood at Dow, Ill.

SAWED TEN CORDS IN 2½ HOURS

We sawed ten cords of wood in 2½ hours—the engine runs fine.—HENRY J. KAPPLER, Dow, Ill.

At work in Oak Harbor, Ohio

DIDN'T FIND ONE TO STALL IT YET

I put my WITTE 5 H-P. engine to work on all kinds of jobs and didn't find one to stall it yet. I put it on a 13" feed cutter with blower and if the fodder is good and dry I can put in a half a bundle at a time and the engine runs right along. I also run a 8" Letz Feed Grinder with the hopper full of mixed grain. I open the grinder wide and set the burrs tight till blue smoke comes out—that is more than I could do with my old 4 H-P.—ERNEST MADISON, R. 4, Box 50, Oak Harbor, Ohio.

STARTS EASY

Am well pleased with my engine. It starts easy even in zero weather. It works the best on kerosene of any kerosene engine I have ever seen, regardless of price. Would be glad to show it to anyone.—GORDON E. SWARTHOUT, Dundee, N. Y.

USED IT SIX YEARS EVERY DAY

As far as the engine goes, it is a good one. I have used it for about 5 or 6 years every day and it gave no good results. I am very busy at present. I am building a new hot house and a new barn, and if I get a new engine, it will be a WITTE.—HENRY BRECKENKEMP, Quincy, Ill.

STARTED ON FIRST TURN

I am very proud of my engine. It certainly runs fine and is very simple to operate. I read my instruction book and then I went out where I have my engine. I primed it, set spark late, opened the fuel valve and gave the fly-wheel one rapid turn and off she went. I have plenty of power and I like it very much.—WILLIAM C. KUTZ, Kutztown, Pa., R. F. D. No. 2.

There's Only One Profit In a WITTE Engine

More than 200,000 Users Tell of Their Satisfaction

Pumping power at Prestonsburg Ky.

PUMPING 200,000 GALLONS A DAY

Am sending you a photograph showing one of your 25 H-P. gas engines driving a 10x12 Worthington Duplex power pump. I am pumping about 200,000 gallons of water each day of a twelve hour run against a 240 ft. head pressure. I have been running this engine one year, twelve hours each day, without one penny repair cost.—G. C. DAVIS, Prestonsburg, Ky.

HANDLES 30" BURR MILL WITH EASE

Six months ago I bought a 10 H-P. WITTE Throttling Governor engine and my engine pulls a

Grinding feed at Cruger, Miss.

16" Burr Mill, also one 30" saw, cutting poles 13" through. I get good profits from this machine with good satisfaction, and anyone can make good with it.—T. LEHMAN, Cruger, Miss.

GINS COTTON

There is not a better engine than yours, built by any designer regardless of the price or make. I took my engine down to my gin house and ginned my cotton nice as my old steam engine. Ran the gin and press at the same time, pressing some bales weighing 630 lbs., and ginning at the same time. Everybody is amazed at a small engine doing such work.—HIRSCH EVANS, Seale, Ala.

PUMPS WATER AND CHURNS

I ordered an engine from you eight or nine years ago from Altoona, Ala. I ran it four or five years and it never gave me a bit of trouble. Was always ready to go.—B. H. HORTON, Ft. White, Fla.

NEVER THINKS ABOUT STOPPING

I have your 15 H-P. engine in operation for some time and certainly am pleased with it. I am driving a big 6 roll planer 8x20 inches with it and machinery and moulder with rip and hand saw, running all at one time. I believe this WITTE Engine could pull two of those machines. I turn out 12,000 to 15,000 feet a day of nine hours, and burn only seven gallons fuel. The engine never thinks of stopping.—G. E. CARBETT, Hot Springs, Va.

SAVED GAS ON IRRIGATION

Received engine in good shape, got it to work Friday after you shipped it. It sure is a fine little engine and I don't know what I would have done without it. We sure are proud of it. We saved about 37 gallons of gas on our irrigation this time, and she pulls one of the 9-inch Stanfield & McNight Pumps that pumps 350 gallons a minute, so I am satisfied with it.—MRS. B. SPERRY, Vernalis, Calif.

Spraying fruit in Colorado

EXCELLENT WELL DRILL POWER

I have tried my engine out in every way and found it satisfactory. My well drill is now down 300 ft. and my engine handles it fine. I don't know how much further it will go down but I am satisfied it will drive 400 or 500 ft. It sure does its duty.—A. F. BOETTCHER, Box 425, Fonda, Iowa.

30 BELOW ZERO—WITTE STARTS EASILY

The WITTE Engine purchased from you in December is certainly everything which could be expected. I have never had any trouble of any kind with it, and have started it easily when the thermometer stood around 30 below. I will certainly send you all future engine orders which I have.—BAILIE N. SAVAGE, Savageton, Wyo.

WITTE RUNS FINE

I have got my 10 H-P. Portable Saw-Rig and it runs fine. It arrived in good shape.—WILL KLUG, Challis, Idaho.

HE HAS FIVE WITTES

If you will come up I will show you seven engines, of which five are WITTES on our place.—GUY E. SPICER, Bushnell, Ill.

USED HIS WITTE 8 YEARS WITHOUT A REPAIR

I have one of your engines, 5 H-P. No. 8058, and I may say that this has been one of the best little engines I know of. I used it for 6 or 8 years steady and never bought any repairs yet.—ARNOLD LARSON, Borden, Sask., Canada.

MRS. KYSTER LIKES IT, TOO

I like the engine real well. It does fine work. I am pumping water with it and gummed two saws with it—drag saws for my saw rig that I cut wood with. I can start the engine without any trouble. When my husband was out sawing wood with the big engine all week, I used to start it easy.—MRS. HANS KYSTER, Mason, Wis.

Irrigating in Georgia

FROM MEXICO

"The WITTE Engines have worked perfectly since they have been installed and I am completely satisfied with them. Their consumption of fuel is very economical and their operation is extremely easy, so easy that any inexperienced laborer can run them."—PABLO PINEDA JUNCAL, Ixcatlan, dist. de Tuxtepec, Oax, Mexico.

ON THE YUKON

My engine is installed in a 55-foot stern wheeler, driving this heavy boat against a 5-7 mile current, the average rate being six miles per hour, going down stream at the rate of 12 miles per hour. As to the fuel question: I want to tell you what we did on 2½ cases of fuel, mostly kerosene. From Dawson up to Ogilvie and back, 100 miles. From Dawson to Ten-Mile Creek and back, 25 miles, making a total of 305 miles, loaded to the gunwale one way, and still some fuel left.—D. M. McRAE, Dawson, Yukon, Alaska.

On the Yukon

Buy from the Maker at Factory Prices

From All Corners of the World Come Unquestioned Evidence of WITTE Quality and Service

Even in far off lands WITTE users are many and herewith tell us of their satisfaction

FROM MEXICO

"The 7 and 10 H-P. WITTE Engines which I bought from you are working satisfactorily. They are economical in their use of fuel, durable and easy to operate."—SIMON GUTIERREZ, Arriaga, Chiapas, Mexico.

FROM COSTA RICO

"We are entirely satisfied with the solid construction, easiness in operating and perfect finish. The consumption of fuel is very low, with or without a load, due to the throttling governor."—A. BORBON, San Jose, Costa Rica.

An oil well in Mexico

FROM NEW ZEALAND

"I have found the WITTE to be an efficient and reliable engine for milking machines and orchard sprayers. They start up readily and the governing device is very simple and effective."—B. F. CHANWELL, Auckland.

FROM POOCHAKKAPATTY, BRITISH INDIA

"We believe you will be interested in the facts in connection with the 3 H-P. WITTE Stationary Engine we are using on our farms at Poochakkapatty for irrigational purposes. The engine works a 2-inch Austin Centrifugal Pump with ease, though the suction lift is 20 feet and discharge lift 10 feet, the output being 5,000 imperial gallons per hour. Starts easy in petrol (gasoline) and then runs well on even inferior kerosene. It is so simple that even an unskilled servant can attend to all details."—A. M. MAHALINGA, NADAR & CO., Sankarolings, Nadar, Managing Partner.

FROM SYRIA

"Users are very satisfied and particularly so on account of the simplicity of the engine, on account of the easy starting facilities."—DAHER CHAOUI & FILS, Beyrouth, Syria.

FROM BELIZE, BRITISH HONDURAS

"It is one of the most reliable and satisfactory engines in its performance. Gives no trouble whatever. Whether winter or summer it works just the same."— JOSEPH HULSE.

FROM MAYAGUEZ, PUERTO RICO

"The WITTE Engine is very economical to operate, lasting and simple."—MANUEL M. GRAU.

FROM ENGLAND

"The WITTE 5 H-P. Engine has given us satisfactory service. It has been hard worked for 8 hours per day, and we have had no troubles whatever. The fuel consumption is very low—9 cents a gallon."—KNOWLES TROTMAN & CO., Wood Green, London, England.

FROM CUBA

"Due to the solid construction and balance of all the parts of this motor, the work has been surprisingly efficient; knocks and vibration have been eliminated and the work is silent as well as powerful and steady."—JOSE A. MARTINEZ, Habana.

FROM PUERTO PLATA

"I use this opportunity to tell you that I have tried your motor and with pleasure I must say that the results have been beyond my expectations."—JUAN SANGIOVANNI, Puerto Plata, R. D.

FROM WEST AUSTRALIA

"I am very satisfied with the WITTE Engines, which compares more than favorably with any other American Engine on this market as regards price, workmanship and operation."—GRAHAM DOONAN, Perth, W. A.

A farm in Bulgaria

FROM COLOMBIA

"I inform you that this is the first engine of your make that is installed in the Department of the Valle del Cauca, Colombia, for the operation of a sugar mill.

"My satisfaction was great when my doubts and fears vanished before the efficiency of the engine, because I can tell you it makes in 4 hours which made the hydraulic wheel in a day of 12 hours' work. The success which I obtained made that several farmers visited my farm named "El Chilral" in order to see the engine, desire which I fulfilled with great pleasure converting myself, as you will understand into a propagandist for your admirable engine, thing which I do, I repeat it, with the greatest pleasure."—CIPRIANO CORREA R., Buga, Colombia.

FROM AUSTRALIA

"The WITTE is all that you claim for it, and the Engines are giving wonderfully good service. One of our friends expressed himself amazed at the pulling power of the 5 H-P. Engine."—A. V. DODWELL, Brisbane, Australia.

FROM HONDURAS

"The Arm Swing Log Saws arrived here on the 5th inst., and I had the pleasure of setting up one of the outfits and giving it a trial, sawing a 35-foot mahogany log, which it cut in record time and proved satisfactory."—WALTER G. BURN, Spanish Lookout.

FROM GREECE

"I am very satisfied with your engine and especially with the attention which you have always given to our co-operation."—GEORGES A. DROSSOPOULOS, Athens, Greece.

FROM TURKEY

"We have nothing to complain of as regards your service. We have always been entirely satisfied. We do not ask better."—MESSRS. MIHRAN GUESSARIAN FILS, Constantinople.

FROM DOMINICAN REPUBLIC

"The results given by the WITTE Engine are superior to what I have expected."—JUAN SANGIOVANNI, Puerto Plata, Dominican Republic.

FROM JAMAICA, B. W. I.

"I owned the first WITTE Engine that was brought to Jamaica over ten years ago. At that time I ran a small bakery in a country town, my business has since grown to very large proportions and is now located in the Capital of the Parish, and it's pleasing to see the Power behind the Dough Brakes today, is the original Engine I started my business with over ten years ago."—W. E. WHITE, Jamaica, B. W. I.

A bakery in Jamaica

A High Quality Engine at Factory Prices

Thousands of Users Also Testify to the Money-Making Opportunities of WITTE Engines and Power Saws

John Krostt runs a lath mill at Lawn, Minn., and from the looks of his pile of laths is making money fast.

A lath mill in Minnesota

SAWED $3,000 WORTH OF LATHS A YEAR

"Just a few lines to let you know that I am still living and my 7 H-P. WITTE Engine is working fine. I sent my last payment to the First National Bank today. I can say that you sure did play square with me on the payments. I sawed $3,000.00 worth of laths in the last year with your engine. Nobody else could have done better."—LESTER ZECHMAN, R. 5, Box 4, Lewistown, Penn.

CLEARS $45.00 PER DAY

"It works as good as ever—I cut from 15 to 20 cords a day. I cleared about $45.00 a day. Think that's doing good work. I have also cleared my

Garner's Rig at Weathersby, Miss.

land and got close to around $200.00. It does not take much to run the outfit. If anyone wants to know about my rig, tell them to write me."—PAUL GARNER, R. 1, Weathersby, Miss.

WITTE means profitable power to a Mexican factory

MADE 25 DOLLARS FIRST DAY

"I am more than pleased with my engine. It gives good results and is just right for the work I have. The first day I had it on the road I made $25.00. So you see I am well pleased. A WITTE for me every time."—HENRY KING, R. 1, Box 134, Millberg, Mass.

WITTE SAW RIG MONEY-MAKER

"I like my outfit fine. I use it for sawing wood. Have made $500.00 with it. It runs good and starts

Fugate and his log saw at Pomona, Mo.

easy, even in the coldest weather. It don't take much fuel, and I know that anyone can operate a WITTE Engine and will enjoy it."—BURSE FUGATE, R. 1, Box 119, Pomona, Mo.

BIG CAPACITY—STARTS EASY

"The saw rig I got from you sure is a dandy. I have sawed 400 cords of wood with it at 50c a cord and haven't worked over one-fifth of the time. It works as smooth as a peeled onion. I had a———— outfit before I got the WITTE and on cold mornings when I would go to saw it worried me to know whether I could get it started before noon or not. I have had a bunch of men standing around, waiting for me to get it started until they would nearly freeze and threaten to go home, but that never did happen with the WITTE—it always goes the first turn over. On one run I sawed 13 cords of wood in two hours and 20 minutes. We sure were a busy bunch. One of the fellows said he had sawed with all kinds of rigs but never seen its equal for power and it is a mighty handy rig to get around with."— ORA TULL, R. 2, Hatfield, Mo.

HE LIKES THE STEADY WORK OF THE WITTE

I have a Star Pea Huller No. 1, made at Chattanooga, that I used during the seasons of 1908-09-10 with a 2 H-P. . . . . engine, and during that time I threshed more than 5,000 bushels. I moved off the farm and set this thresher aside under a shelter from March, 1910 until September 1, 1922, when I rigged it up with the WITTE Engine I got from you and have threshed 1,040 bushels with the old thresher and I am doing better work than when the thresher was new. Now why? Because the . . . . . engine was a hit and miss and did not pull regular like the WITTE and burst more peas. I burst very few peas, clean them nicely and give splendid satisfaction.—CLYDE T. HANNAH, Loganville, Ga.

RICE IRRIGATION

Our 25 H-P. Stationary Throttling Governor Engine is doing its part towards raising a rice crop on the farm of H. D. Wilkins near Otwell, Ark., with Joe Wilkins operating. The engine has performed very nicely and we have raised a nice crop of rice which is almost ready to harvest; will need no further flooding. — D. H. WILKINS, Otwell, Ark.

$1,065 WORTH OF SAWING

"I have done $1,065.00 worth of sawing besides my own, in the eight years I've run my WITTE Portable Saw Rig."—R. J. PETERSON, R. 2, Junction City, Kas.

A log saw in Germany

4000 TIES PER MONTH

"I bought a 25 H-P. engine from you almost two years ago and I have been sawing ties all that time. I am glad to say that it is working better and has more power now than it ever had. I am making on an average of 200 ties a day or 4000 per month, bringing me at least $1,000.00 per month. Isn't that pretty good?"—L. C. McCLANAHAN, Albany, Wyo.

A MONEY-MAKER

"I am writing you to let you know how I am getting along with my engine and the kind of work I am doing. I am well satisfied—I have used it for

Plenty of work at Jonesboro, Ark.

cutting wood only so far. Have paid for it two or three times, and delivered about $1,800.00 worth of wood and cut lots of wood for my neighbors."—W. D. UPTON, Jonesboro, Ark.

57 Years in Business—You Take No Risks

The WITTE Tree Saw

Saws Them Off Close to the Ground

Does All Power Jobs

The WITTE Tree Saw is one of the highest type of labor-saving machines ever put on the market. It consists of a special 4 cycle WITTE Engine and a lot of special equipment wherewith it is possible to saw down the largest of trees within 4 inches of the ground and on special requirements can be sawed level with the ground.

It makes no difference where the trees are, whether in a level pasture, dense forest, on a hillside or a creek bank. It works just like two men would work a double ended hand saw, but will do the work in far less time.

The WITTE Engine on this rig is large enough, as you can see elsewhere, to saw down very large trees. It is really three or four times as large as it really need be, for there is a mistaken impression that sawing down a three to six foot tree requires about 4 H-P., when the fact of the matter is that two husky men representing only ¼ H-P. can do it easily by hand, while the WITTE Engine will never get tired and has a great many times more power.

Some log saws, which consume a great deal of their power within themselves, do really require a large engine, but they are not built upon the human arm swing principle on which the WITTE Saw operates. The WITTE Log and Tree Saw, in this respect, is in a class by itself, for we have a monopoly on this particular principle of operation. No other saws are so efficient.

The WITTE Tree Saw is particularly adaptable to the felling of trees, because there is a force feed attachment with a large spring, whereby the feed into the tree is automatic, and the operator need not stand by as in other rigs and pull or push the saw, which is very crude and dangerous. Furthermore, the WITTE Tree Saw requires only one minute or so to change from a Log to a Tree Saw (see opposite page), while on some other tree saws made it takes a long while to "set up" to get ready to saw a tree, so that many of the users of that machine quit in disgust, and finally have to saw down their trees by the old hand method.

It is a well known fact that there are only two tree felling outfits on the American market, and the WITTE is the only successful one of the two.

The wonderful friction clutch control, by means of which the lever starts or stops the saw blade, is invaluable, because you can start and stop instantly. It is also so arranged that in case a saw blade pinches or jams, the clutch will automatically slip until you have had time to disengage it by means of the lever.

The WITTE SPECIAL ENGINE on this rig will consume only about 1½ gallons of fuel per 10 hours, and will burn almost any grade of liquid fuel known.

The WITTE Arm Swing Log Saw Cuts Up Logs

At the Rate of 15 to 20 Cords Per Day

The Arm Swing Log Saw is the only one of its type in the U. S. It works upon the human sawing principle and uses the same engine as the tree saw on opposite page and is similarly equipped, except that the saw is at a different angle, and its own weight automatically feeds it.

As soon as you are through sawing a log you stop the saw with the clutch lever, raise the fulcrum arms and saw. You can then move the rig endways of the log and again start to cut. Heavy spurs with a hook and chain anchor the rig to the log. The 18-inch truck wheels are turned in a different position from the Tree Saw. This is done by merely pulling the cotter pin, shown in the tree saw axle, and changing wheels. The saw blades are exactly alike because both are for cross cutting. Five feet blades are standard. The speed at which these saw blades are geared are the guaranteed speeds of all saw manufacturers. The fulcrum arms and both gears are made of semi-steel.

We are the only U. S. manufacturers who furnish an extra hopper on the engine, though it is a well known fact that on all others the hot end of the cylinder must sometimes be allowed to run without water when sawing large logs at a great angle. An efficient saw guide will start the blade true in the log.

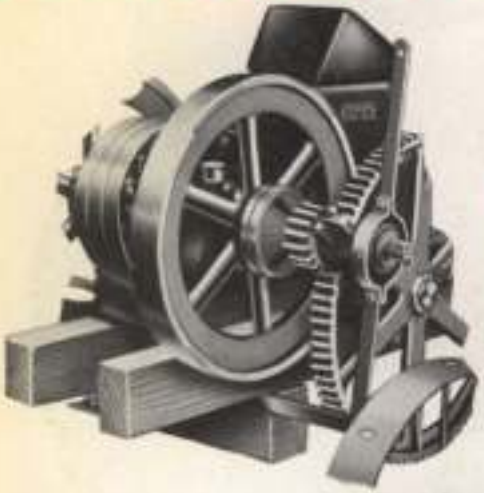
When through with your log sawing this outfit may be used for all kinds of other work within the capacity of the engine, for a plain pulley may be used, but we can also furnish a special 10x3 friction clutch pulley adaptable where the saw clutch gear is. This makes an ideal outfit for the balance of the year on a hundred and one jobs around the farm where it may be moved like a wheelbarrow, for the weight at the small end is only 38 pounds.

The detailed description of WITTE Engines is identical with the engine used on this high class rig, and being magneto equipped can be operated in rain, sleet or snow.

The saw blade is especially constructed for this class of work by U. S. manufacturers of great experience. The blade is 8 inches at the butt and 5 inches at the point, tapered both ways with gullets made to clear quickly and with teeth especially designed for this class of work. If saws are kept in order they will walk right through a tree.

200,000 WITTE Engines Are In Daily Use

These Exclusive Features of the WITTE Log and Tree Saw are What Make It The Outfit You Should Have



Safety Lever Clutch Control

This new fibre disc Clutch Control permits you to stop or start your saw blade at will. Your engine can continue to run while you move your outfit from cut to cut. This eliminates waste of time as well as making it unnecessary to start your engine each time you cut. Start your engine, then push in clutch lever, and blade immediately starts sawing. You have full control of your outfit at all times. The clutch is adjustable to any tension, according to your conditions. The clutch can be so adjusted that if the blade jams the clutch will slip, a feature you will appreciate, for logs will pinch.

Reversible Wheels

Both the Log and Tree Saw Outfits are equipped with a steel axle on both ends of which are shafts that permit the wheels being reversed. Reversible wheels permit the outfit to be rolled along the log from cut to cut, and also furnishes an effective anchoring or brace for the outfit. The specially made curved face and large diameter wheels make easy moving in soft dirt, gravel, etc.

Blade Adjustment

Note the three adjustment holes in the end of the drive arm which permits the blade being set so that it meets the conditions of the timber you are sawing. For soft timber and fast sawing hook the blade into the hole nearest the drive arm, and it will dig into your wood faster than if it is hooked into the hole nearest the end. You will find this a valuable feature found only on WITTE Outfits.

Saw Guide

This adjustable Saw Guide enables you to automatically start your saw properly and makes the cutting easier. Fits on the blade and works automatically.

The Saw Guide is especially wide, and is fastened securely to the log spurs and skids by means of extra long bolts with square nuts.

Interchangeable Parts Without Hand Fitting

Every Part Carefully Built To Do Its Particular Job

WITTE Non-Spill Hopper

Note the added hopper on the top of the regular water hopper. This increases the water capacity and also prevents water slopping or spilling over when you have the outfit set at a high angle on a big log. This added water capacity is just one of the many exclusive WITTE features.

The ratchet and log hook near end of skids hold outfit securely to log. Drive log hook into log and turn up ratchet till chain is tight. The back ratchet is used for applying tension to tree felling attachment in same manner.

Log Hook and Ratchet

A spring force feed is put on all of our tree saw outfits. The tension is sufficient to keep the blade in the cut and well up against the wood for fast cutting. The WITTE is the only outfit made with a spring tension forced feed.

The above illustration shows the gear drive and the pitmans, which give the blade action. The gear is heavy and made of semi-steel, which is tough and durable and furnishes the necessary strength back of the stroke. The semi-steel pitmans and drive arms are all heavily re-enforced, accurately balanced, well lubricated, and of sufficient weight to put force back on the blade as well as furnishing the necessary downward weight to keep the blade sawing fast at all times.

Semi-Steel Gear Drive

How It Works

Starting to Cut

Moving Along Log from Cut to Cut

Note here the saw blade is starting into the log. Notice the angle of the blade. As you proceed with the cut this blade drops down and cuts at a natural angle and finishes the cut horizontal.

Half Way Through

This illustration shows the blade half-way through the log and still perfectly horizontal.

This illustration shows the blade finishing the cut horizontal and even with the ground, and not digging in on the other side of the log with the end of the saw blade.

Finishing the Cut

Note in this picture that the wheels have been reversed, and one man is pushing the outfit from cut to cut.

Works Just Like a Wheelbarrow
A Portable Engine
and Saw All In One

Note in this illustration the ease with which this outfit is moved from place to place. It weighs only 38 pounds at the handle end, and is so balanced that it can be rolled from one place to another, just as herewith pictured.

Quantity Production Makes Low Prices

They Don't Grow Trees too Big for The WITTE Log and Tree Saws

The Strube tree at Fortuna, Cal.

CUTS BIG TIMBER

My saw works for the Stran Construction Company, cutting big timber. I am cutting maple trees this afternoon that are 4½ feet through and the hired man never gets tired—just keeps going. "I'll take a WITTE any time."—LYMAN SMITH, Corning, Iowa.

CUTS 800 SIX-FOOT PROPS IN 9 HOURS

"I cut 800 6-foot mine props in 9 hours with my WITTE Log Saw. It sure does fine work."—JAMES H. ZACH, Indiana, Penn., R. F. D., No. 4.

DOES REMARKABLE WORK

"It has done remarkable work, both in cutting down, and also in cutting up. Especially handy has been the Buzz Saw Attachment to saw up the smaller pieces."—F. A. MASON, Mason Park, Babylon, Long Island, N. Y.

NO TROUBLE WITH IT

"In regard to my log saw, I wish to state that I have never seen as perfect a saw outfit as the WITTE. I have no trouble with it, as it starts easy, runs easy and never gets tired as long as it has its gas, oil and water, and with a sharp saw will make one keep busy to get out the logs to the saw. This outfit is just the rig for the work I am doing, as I am cutting maple and birch logs up into 16x18 inch wood, known as slab wood, and my saw is a big labor saver."—CHARLES O. PETERSON, Florence, Wis.

RECOMMENDS WITTE LOG AND TREE SAW OUTFIT

"We find the outfit very simple to operate and it is easy to move from place to place. The outfit sure is a great labor saver—cutting down trees and sawing them up very quickly."—ANDERSON BROS., Box 131, Caledonia, Minn.

SAWING 15-FOOT REDWOOD TREES IN CALIFORNIA

"I am using a 10-ft. saw. The biggest I could get but the tree is fifteen feet in diameter and I was obliged to cut around the outside with the 10-ft. saw. I do not know exactly how long it took but about one day steady work. The wood is redwood, soft and wet when first cut. As to the tree saw, it is all right because I can put on as much tension as I need. I had no trouble and like the outfit very much."—C. H. STRUBE, Fortuna, Cal.

ARM SWING JUST THE THING

"I am well pleased with the log and tree saw which I purchased last fall. The outfit is neat and strong and should give many years of service. The engine, the most important part, is smooth running and has more power than is required for sawing. It is the easiest to start and run in cold weather that I have ever seen. Have used same on a 16-inch Freeman feed cutter and cut at the rate of 15 shocks of corn per hour. I purchased your saw because it has the arm swing feature, and is the only log saw that I know of that makes a complete cut when the log is flat on the ground. It lets the heel of the saw down close to the ground and therefore makes a complete cut without the point of the saw entering the ground. The WITTE rig can be easily handled by one man and saws as much wood as four men with cross cuts. The tree saw works very satisfactory and does all you claim."—I. G. RABENHORST, Watertown, Wis.

THE WITTE LOG SAW WORKING AND DOING A GOOD JOB AT KELKHEIM T. (GERMANY)

Fritz Hamm at Kelkheim, Germany

Listen to What Fritz Hamm Says:

"We have the pleasure of handing you herewith a photograph which was sent me by Gebr. Dichmann, of Kelkheim T. (Germany), showing one of your regular log saw outfits sawing a big hardwood tree. This outfit has been in use for over two years and is giving them excellent results. The owners congratulate the WITTE factory for putting out such high class product, and have authorized you to make whatever use of this letter as you see fit."—FRITZ HAMM, Hanau a/M, Germany.

There's Only One Profit in a WITTE Engine

I Sawed 34-Inch Tree Down In 4½ Minutes

"I am glad to write and tell you that I sawed down a 34-inch tree in 4½ minutes. Sawing them down is not as fast as sawing them up. I sawed a 16-inch pine log in one minute." —ARTHUR READ, Litchfield, Me., R. No. 17.

Read's outfit at Litchfield, Me.

EARL McBURNEY SAWED DOWN 39 TREES IN FIVE HOURS

It Pays to Investigate

"I have used the Tree Saw and I can't find a thing wrong with it. It sure does work fine and so does the Log Saw. Before I ordered a log saw I had catalogs from four different manufacturers and I studied on them a long time, and I think I did wise in ordering a WITTE. One thing I like about it is the Arm Swing. It lets the heel of the saw down so that the point of it won't run in the ground before the cut is off. I think the tree saw is the best and lightest of any."—EARL McBURNEY, Marble Rock, Iowa.

J. KILLIAN'S LOG SAW IN THE SIERRAS

"I took a long chance when I brought the saw away up here in the mountains, but it has worked fine and saved me lots of money. Of course I can't cut 25 cords a day, but I can cut as much as many men could do in the same length of time. I am sending you photos showing you conditions under which we have to work. I am rigging up now to rip 6-ft. blocks into planks."—E. J. KILLIAN, Sierra Madre, California.

Mike Subo's log saw at Pueblo, Colo.

EASY TO HANDLE, EASY TO START AND ALWAYS READY

"I like the WITTE Log and Tree Saw because it is easy to handle, easy to start, and it does not cost much to run one of them and they sure will do a big job. I have cut wood measuring from 3 inches thick to 3 feet and 2 inches in diameter and it will cut them bigger than that. These logs we cut up for our own use and as long as I have a WITTE Log and Tree Saw I will not have to buy any coal. I would not be without a WITTE at any cost."—MIKE SABO, 1229 Berumd Ave., Pueblo, Colo.

CUTS 23 OAKS IN 2½ HOURS

"The best cutting I have done, cut down 23 white oak trees in 2½ hours. I was making posts. Also cut wood for furnace and used the branch saw for sawing up tops. It worked fine. I have only cut for myself, as I am not young any more. I am 71 years old."—GEO. C. SHEPARD, Janesville, Iowa.

LIKES WITTE LOG SAW

"It is doing all and more than I expected of it when I ordered it. I have cut up 22 cords of short wood and sawed down seven large trees on five gallons of kerosene and less than two quarts of gasoline. I cut down a large yellow pine tree that had 92 saw cuts, was solid pitch at the base and you know what it means to cut through such stuff. I cut the tree down in ten minutes, 4 ft. through, with the sawing down attachment. I cut another yellow pine tree that was exactly five feet through and had to chop away the bark so that the end of the saw would come through to push out the sawdust. This tree was pitchy also and quite twisted and had no frost in it, which made it cut harder, but the saw took it on high and didn't even show signs of heating up. I have enough timber on my place to keep me sawing for a number of years, but there won't be any more backache from pulling a cross-cut saw as long as your factory continues to build saw rigs."—PAUL W. WOOD, East Helena, Mont.

SAWS BLOCKS—BIG CAPACITY

"My WITTE saw is a good one. I sawed and split 15 blocks 3½ ft. through in three hours, the saw did its work while I split. Another time I sawed 81 blocks that run from 12 inch to 20 inch through in 3½ hours. This is a far cheaper way to get your wood than with hired help, as my log saw mill will do as much work as four good men."—F. W. ALLBONES, Center Point, Iowa.

HANDLES LOGS, CUTS WOOD AND RIPS LUMBER

On the skidded logs it is a handy outfit and when operating my cut-off saw, I can cut from 20 to 25 cords a day and I am also, as you will see, able to rip lumber with the outfit. I am certainly very well satisfied and it is doing great work.—FRED HARFF, Columbus, Michigan.

MORE THAN SATISFIED

"We are more than satisfied with the WITTE Log Saw purchased from you. We recommend the WITTE machine to anybody. We cut about 12 cords a day. The engine will start any time, even in the coldest weather."—JOHN WILLEMSTIEN, Doon, Iowa.

The WITTE Log Saw at Isle of Pines, West Indies

WITTE PAYS FOR ITSELF QUICKLY

My WITTE Log Saw is doing great work. I don't know just how much wood it will saw in a day, as I am too old to stay with it all day, but I know it keeps two men busy busting it up into stove wood. I have had my Log Saw 3 months and it has already paid for itself. If I knew I couldn't get one just like it, I wouldn't take four times the amount I paid for it. I have had lots of trees that had been sawed down a year or more, and they would have been all rotted in a few more years if I hadn't bought a WITTE Log Saw.—BEN HALSEY, Meadow Grove, Neb., R. 2.

The WITTE Log and Tree Saw at Hollywood, Fla.

Buy from the Maker at Factory Prices

The Greatest Money-Making Combination WITTE Has Ever Offered You

The WITTE tree saw

The Complete No. 50 WITTE Log, Tree and Branch Saw Combination You Have Been Looking For

Here's the rig you need and here's a special combination offer that saves big money. WITTE is a practical man and knows what's needed for real jobs. You can't buy such a complete outfit from anybody else. Here's a complete outfit at a big saving over what you would pay if bought separately. With this outfit you can cut trees off near the ground, saw the fallen log, cut branches and firewood with the branch saw, and use the special pulley for extra belt work or for other jobs requiring power, and finally I include belting and waterproof canvas cover to protect your outfit in any weather. You know it will pay you to have this outfit right now, and I am going to make it easy for you to buy. I will make a special money-saving price and extra easy terms. Remember this is the same outfit being used by thousands of satisfied customers all over the world, a success from every standpoint, built with a lifetime guarantee, starts easy and works perfectly under all weather conditions, and sold to you DIRECT from the maker at factory prices.

The No. 50 Combination Consists of the Following:

THE WITTE ARM-SWING LOG SAW.— Completely equipped with a WITTE Special Log Saw Engine, with a high tension WICO Magneto, two flywheels, Throttling Governor, speed and power regulator, 5′ Saw Blade, and all ready to run.

THE WITTE TREE SAW ATTACHMENT.— Attachments complete as is the Log Saw specially to cut off trees near the ground, and level with it when instructions are followed.

A HANDY BRANCH SAW FOR TRIMMING UP.—Ties right up to the extra pulley on the engine of the Log and Tree Saw and cuts firewood and branches.

ALL THE FOLLOWING VALUABLE ACCESSORIES GO WITH THE OUTFIT:

Waterproof Brown Canvas Cover for the Log and Tree Saw will stand the severest rain or snow storms and protect your outfit. High quality special clutch rim pulley runs Branch Saw and does other belt work. 22-inch quality circular cross-cut saw blade made expressly for cordwood or pole. Guaranteed standard quality belting made to give long service under special conditions—just the thing for outdoor use.

YOU WILL NEED ALL THESE THINGS
GET A COMPLETE OUTFIT
DON'T ACCEPT LESS!

Log saw canvas cover

The WITTE log saw

A High Quality Engine at Factory Prices

Get In Business for Yourself

Now, here is what it will do: It will saw as much in a regular working day as several men. It will operate all day long on not to exceed two gallons of gasoline and not to exceed one pint of lubricating oil. At the present price of gasoline that is about 45 cents cost. I have many letters and photographs showing just one man operating this outfit satisfactorily. I mean by that, moving it from log to log and attending to all of the operating by himself, and having time in between cuts to split up his logs into stove wood. However, two men can work the machine to good advantage.

You can saw down a tree, immediately take off the felling attachment and place your outfit against the log and start cutting it into blocks. All the slack time your men have can be used in splitting up the blocks and cording up the wood. A whole crew of men cannot cord up any more wood in a day's time than this outfit can with one or two men. Therefore, you can see that this outfit really does pay big.

When I tell you that the WITTE Log and Tree Saws are mechanically perfect and a thoroughly practical machine, and that thousands are actually being used, this is probably the first thing that occurs to you: "Now that machine looks all right, and here's a lot of people say it is all right, but will it really pay me to use one of them."

I have been making this rig for many years. I have applied the same care in its design and making that I have always applied to the WITTE Stationary Engine and the Famous WITTE "Money-Maker" Circular Saw Rig. Therefore, when I say that the WITTE Log and Tree Saw is a success from a mechanical standpoint you can rest assured that it is. I have carefully seen to that. I have hundreds and hundreds of testimonials from the users of these saws, and I have never made anything in our long career of manufacturing that has brought us the numerous complimentary letters and testimonials that this Log and Tree Saw Outfit has.

The Friction Clutch Pulley Rim

The No. 10 Saw Frame

It is doing highly satisfactory work in nearly every country in the world, and if I could show you and tell you of the many queer uses to which it is put, you would say that it is almost human. I do not want to make extravagant claims for this outfit, because I realize that the outfit is most generally used for average work and not for freak uses, but I am going to say to you that I stand back of this outfit in every particular, and that it will pay you to use one of them.

Your Neighbors Know! Ask Them!

Here's a typical recommendation or so from them for your information:

The No. 51 Log and Branch Saw I bought of you last Fall certainly cuts up timber. If a man wants a saw outfit, be sure and get a WITTE.—D. W. McKEE, Quinton, Okla., R. 2, Box 4.

My No. 50 Log, Tree and Branch Saw I purchased of you some time ago is certainly all right. I have cut down trees, sawed logs and buzzed wood and find it very satisfactory in every way. I also use the engine to grind feed with, and it works perfectly. Have never had a bit of trouble with the engine; have started it at zero weather without any trouble. Anyone wanting an outfit of this kind can't go wrong in buying a WITTE. — J. E. CONKLIN, Lake Village, Ind., R. 1.

I am well pleased with my No. 50 Log, Tree and Branch Saw. I am doing fine work with the outfit; am cutting wood with it now with good success. I cut down 9 trees in three hours averaging 4½ feet across the stump. The other day I cut 44 2-foot cuts in 3 hours. I would not be without it for no money.—J. R. BISHING, Solon, La.

My Log Saw is certainly O. K. and it works fine. There is a neighbor in the same woods cutting with another outfit, but my WITTE walks right away from his machine. He says he wished now he had bought a WITTE outfit. I would not part with my machine.—CLEM NICOLS, New Carlisle, Ind.

I received the Log and Tree Saw and took it in the field at 9 o'clock, took one and a half hour at noon and knocked down sixty large cottonwood trees. Pretty good for new beginners.—C. J. FLAIG, Sanborn, Minn.

I received my Log Saw some weeks ago and it is sure a fine outfit and am well pleased with it. Never saw its equal, never made a mis-fire since I have had her running. I have been offered $500.00 for her, but would not take $500.00.—CURTIS H. LAVALLEY, Newman, N. Y.

You can't buy this outfit from anybody but WITTE. Mail order houses sell some SAWS—but no other equipment. WITTE is an engine maker—a practical man. He doesn't BUY from some other fellow and carry goods in stock. WITTE MAKES engines and saws, and KNOWS what a man must have to GET SERVICE. Yes—WITTE sells by mail—even to people in Europe and Asia—but WITTE isn't a mail order house buying and reselling everything. NO—WITTE is a MAKER and KNOWS his specialty, sells you the right engine and the right equipment for any mechanical job. Therefore his prices are not only LOWER, quality considered, but the VALUE and SERVICE to you is 100%.

57 Years in Business—You Take No Risks

The WITTE Buzz Saw Combination

(Ghosted timbers not included in prices)

The WITTE buzz saw Combination

Consisting of the following: Special WITTE Buzz Saw Engine, Saw Frame, Saw Blade, Adj. Belt Tightener, Canvas Cover, Pulley, Axe, Belting, Three Wedges and a file, at special prices. You make a neat saving if you buy the complete outfit. You must have all these things anyhow, so why not buy all? This outfit has made money for thousands, it will do the same for you. Read the few testimonials. We have hundreds more, ask for them!

This is the home clean-up outfit that cuts up otherwise waste wood and is a mighty handy worker around the place.

The outfit is really a two-in-one outfit. The following equipment that makes up this combination is described so you may see its great value.

First you have the famous **Standard** WITTE all-fuel, all-purpose Engine, with many new improvements, square protected tank, removable die-cast bearings, WICO Magneto, spark retarder, speed regulator, hot spot, all-fuel carburetor, etc., etc. Guaranteed for life.

Then there is a special tilting saw frame with cast iron frame, cold rolled steel mandrel, balance wheel, steel saw blade guard, wrought iron braces, which also act as belt tighteners. Mandrel 26 inches long by 1¼ inches in diameter.

Extra Quality circular cross-cut saw blades for use on any of our saw frames, made expressly for use as cordwood or pole saws. They are hammered to run properly at the usual speed for these frames. Hand-filed and set, with large gullets. Tempered for severe outdoor service.

Standard quality rubber belting is made to give long service under extreme conditions. Made of long fibre cotton canvas. Rubber belting is the best belting to use for outdoor purposes.

Finished crown face belt pulleys, turned true and made of first-class material.

A heavy canvas cover to keep your engine dry and protected when not in use.

A fine axe of good steel, properly handled, for cutting off branches.

A set of 3 wedges for splitting logs.

A file for keeping saw teeth sharp and in condition to cut the toughest wood.

All the above go with the outfit on this Big Special Combination Offer.
You can't beat it for farm use, and when not sawing its engine is usable for a hundred other purposes.

The Standard WITTE Engine

The tilting saw table

"Sterling" on Silver—"WITTE" on Engines

Works Faster Than Four Men Can Feed It

"We've Never Been Able to Feed It to Capacity!"

"Can't tell how much work it will do, because we've never been able to feed it to capacity, even with four men 'Working'!"

That's what S. DeBernardi of Al-Kate Ranch at Shawnee, Colorado, says about the WITTE Buzz Saw Outfit.

Further, he writes us: "The more we use the rig the better we like it. The engine and saw does its part well, has given perfect service and no trouble whatsoever."

DeBernardi Ranchers At Sawing Work

MAKES 15 TO 20 DOLLARS A DAY

"I am using my 5 H-P. Stationary Buzz Saw Outfit to cut stove wood. I have cut as high as 10 cords in 5 hours and could cut more. I have made as high as $15.00 to $20.00 a day. My engine starts good and in any kind of weather. I have not had any trouble at all. I think the WITTE is better than any other because it starts better, has more power and does more work."

PETE BOSARGE, Kreole, Miss.

"WOULD NOT BE WITHOUT IT"

G. P. Schneider, of Pima, Arizona, with one helper, saws from 3 to 4 cords of willow and cottonwood poles, 4 to 6 inches or more in diameter, into 18-inch stove length, in one hour! "I would not care to be without this saw rig at twice its cost," he says, "just for my work alone. I also use the engine for grinding feed."

SAWS SEASON'S WOOD IN 3 HOURS

"I hauled 12 big loads of wood—sawed it up in three hours and had the darndest pile of stove wood you ever saw. My wife says she would not take $1,000 for the WITTE, as she already has enough wood to last 12 months—It sure does saw."—LON MEEKS, Rainbow Ranch, Driftwood, Texas.

BRIM FULL OF POWER

"My 2½ H-P. Stationary Buzz Saw Outfit is excellent. The engine is brim full of power and is the best engine I have ever seen. I have sold and repaired gasoline engines and electrical apparatus for sixteen years. There is no question in my mind but that this is one of the best engines on the market."—ALFRED W. BUSSELL, R. No. 4, Windsorville, Me.

"BEATS ANYTHING I EVER SAW"

"The 3½ H-P. Saw Outfit came in the afternoon of the 17th. I put it up the morning of the 18th and was running it in less than one hour and sawed two cords before stopping. Since I have cut about 25 cords of wood. It beats anything I ever saw. The WITTE sure does the work. I was so well pleased with it I built a shed for it."—A. W. KRATZ, Malvern, Ark.

HANDLES BUZZ SAW FOR BLACK OAK NICELY

I am sawing oak or hardwood only, and the trees are big. The rig will saw enough wood in one day to satisfy anybody and there is no trouble or bother whatsoever; it runs smooth and perfect.—F. M. WHIPS, Urea, Ill., R. No. 2.

RECOMMENDS LOG AND BUZZ SAW

I get lots of work out of my WITTE Log and Buzz Saw. I am certainly very much pleased with my rig.—ERNEST MILLER, West Swanzey, N. H.

5½ CORDS PER HOUR WITH 3½ H-P. ENGINE

"It sure runs dandy and is easy to start. My son Herman owns a 2½ H-P. engine—both WITTE Engines. With my Buzz Saw I cut 5½ cords of wood per hour. I cut 8 hours one day and cut 44 cords. There are four different makes of engines around here, but yours sure beats them all."—WM. J. SCHULTZ, SR., Box 52, Inger, Minn.

Canvas Engine Cover

WOMEN HANDLE IT

My 3 H-P. outfit with one of your saw frames is being operated by my wife. My children were in school next door from the house where I saw and they could not hear the engine run. A man that was helping me liked it so well that he said that if I got tired of it he would take it. I told him I supposed he would have to get one from the factory.—MR. L. E. GRAVES, Oneonta N. Y., R. F. D. No. 8.

CAN'T BEAT WITTE IN PRICE OR WORKMANSHIP

Every time I start my WITTE Engine I think about you and of the wonderful success I am having. I don't think that a WITTE can ever be beat in price or workmanship. I purchased my engine a little over two years ago and it has done paid for itself over. It is in number one running order yet. I have sawed over 300 loads of wood and ground about 500 bushels of feed, corn-meal and grain and have handled a few other jobs.—WILL F. HAUGH, Mendon, Mo., R. No. 2, Box 25.

An All-Year-Round Outfit

This sawing combination is a mighty handy outfit to have around the place. It is not only a buzz saw run by a WITTE Engine, but it is an engine that you can take off the frame and use for all manner of power jobs all the year around.

It is the ideal home outfit. It can be used for all the little sawing operations that undone would mean waste wood. There's a lot of loss in that waste wood proposition. All the little branches and odd bits that can be sawed up for firewood for the place mean money in your pocket. You can even do this sort of wood work sawing for your nearby neighbors. It is the odd job and handy helper around the farm and you will be surprised at the number of jobs it will do. When the sawing season is over you can take the sawing portion off and put it away in the shed for the winter and use the engine for pumping, grinding, washing machine work, churning, and a thousand and one other jobs that mean a lot of labor saving and money saving, too. The engine is the standard WITTE that runs on not only gasoline but on kerosene, distillate, gas oil, gas and many of the cheaper fuels.

200,000 WITTE Engines Are In Daily Use

The WITTE 3-In-1 Combination

A Stationary Engine, Sawing Outfit and Portable Engine All In One

Standard WITTE Engine

A Portable Engine

Sawing Portion

This outfit is designed principally for cutting cord wood and poles, up to 10 inches in diameter, into stove wood lengths.

A guaranteed WITTE product. When you get this saw rig you get a combination consisting of a stationary engine, a portable engine and a complete portable Sawing Rig that can be moved to your work.

When through with sawing, you can use the stationary engine, the portable engine and the truck for three additional purposes, as both engine and sawing outfit is removable from the truck. The handiest Rig around a farm. Take the power to the work. Complete and ready to run. Lots of power and built to last.

I make it easy for any ambitious man to own my famous rig, because I know that I can afford to offer liberal time payments. This WITTE 3-in-1 Saw Rig Combination makes money so fast that it pays for itself. You will never actually pay a penny for the outfit. All you need to do is get your outfit on your place ready to start piling up big easy money for you. Just look at the illustrations. They are exact reproductions of what your outfit will look like when I deliver it to you. You can take your 3-in-1 saw rig anywhere, drive it any place you would an ordinary horse-drawn vehicle. Then, too, in addition to your cord and pole sawing the engine can be used for any power work around the home and farm. There need not be a single day in the year when you cannot profitably use your WITTE Rig. It's the handiest outfit you ever heard of. The famous WITTE Throttling Governor equipped engine with the Wico Magneto is a guarantee of sure dependable power. It has taken over fifty years to build this better WITTE engine. Now it is acknowledged the peer of all engines.

Make Up Your Mind To Start Now

Just picture the easy money that will soon be rolling into your hands the very day you start with your 3-in-1 Saw Rig Combination. And remember, too, that every job you turn out will be a permanent recommendation for you as to the speed and neatness with which you do this sawing.

Whether you want to go in business for yourself or utilize your spare time the WITTE Three-in-One Saw Rig Combination is absolutely the greatest money maker you ever saw. You don't have to take my word for it—just read what some of my users say, then you'll realize that I'm actually talking from experience. There are hundreds of fellows just like yourself who have decided they could go in the wood-sawing business and have done it with a WITTE Three-in-One Saw Rig Combination.

How the money does roll in! I. S. Johnson, Centralia, Mo., just wrote me and said he cut 115 loads of wood in 9 hours. He only figures his profit at 60 cents a cord, which is a great deal lower than the average price, but at that you can see that he made nearly $70 that day. Now I call that making money!

Interchangeable Parts Without Hand Fitting

We Sawed 27 Cords in 3½ Hours

Writes Frank Klath, Jr., of Tripoli, Wis.:

"We sawed all the neighbors' wood and took jobs away from other outfits. I am surely satisfied with my 7 H-P WITTE Outfit, for it is a bargain compared with other prices of other makes."

Here's What WITTE Users Write Me:

$500.00 PROFIT IN TWO WEEKS

"There are a great many people here in the timber who do not realize or even know about a wood saw, but are still cutting their wood with axes and cross-cut saws, and it is a hard job, so many of them will not clear their land to farm when they could be cutting and selling the wood at a good price, paying for the entire rig in 3 or 4 days.

"I have my rig up in good shape and it is doing fine, cutting over 200 ricks in the last two weeks and did not work all the time. This wood will bring me $500.00 as fast as I can haul it to town. The wood off of my land will bring me more than I paid for the land and having it cleared ready for the plow also."—O. O. SMITH, Everton, Ark.

DID 42 BIG JOBS LAST YEAR

I am more than satisfied with my 7 H-P. WITTE Engine and I am surprised at the amount of work it will do on such a little amount of fuel. I have been pulling a 36-inch wood saw, sawing on an average of 6 loads per hour, and 5 gallons of kerosene will run me about 11 hours. Last year I pulled the same saw with a 5 H-P. Hit-and-miss Type; I only sawed 4 loads per hour and burned 5 gallons of gasoline every 8 hours, so that is a saving on my part. I did about 42 big jobs of sawing last year and expect more this year.—MAX E. ZIMMERMAN, Grafton, Ill.

CUTS TEN CORDS IN 2½ HOURS

I have tried out my 5 H-P. Buzz Saw and find it all and more than you claim. I have cut over 100 cords of maple, beach and birch stove wood out of poles and have had no trouble. I will give you an idea of what I can do: For my neighbors I cut 10 cords of stove wood in 2½ hours on one gallon and two quarts of gasoline at 13½ cents a gallon. Can you beat it? Would not part with my Saw Rig under any consideration. Every one that sees my engine running says "Isn't she a beauty?" and I can back every word I say.—PETER A. LARSON, Charlse, Mich.

SEVENTY-FIVE CENTS REPAIRS IN SIX YEARS

I have been using a WITTE engine over six years. At this time I have paid out seventy-five cents for repairs. A few days ago some 28 men and 4 teams were hired at one of our neighbors to bring wood which, of course, I was to saw for them with my WITTE engine. I am pulling a 26-inch saw and I sawed 30 loads of wood, all 2 horses could pull on good roads, in just four hours and thirty minutes using only about two gallons of fuel. It sure was a good ad for your engine, as everybody thought they would bury me with wood with four teams hauling, but I kept it cleaned up. I didn't even make a stop only when I ran out of wood. I think this is a record-breaker, and I cannot praise the WITTE engine too high. Everybody thinks it is the smartest engine they ever saw.—JOSEPH SHAKESPERE, Lamont, Iowa.

PUMPS, WASHES AND GRINDS

I am still very much pleased with my WITTE Engine as it has always been ready for duty. I use it to run a small wood saw for my own use, grind feed, pump water, and run a two-tub washing machine.—FRED SEEVERS, R. 3, Bedrick, Iowa.

LIKES WITTE SAW RIG

"I and my two boys are very much interested in the WITTE. The saw rig works good. I have sawed 175 cords of wood at idle times and engine handles my feed grinder just fine."—WILLIAM ELPELEIN, New Florence, Mo.

SURE TO PAY FOR ITSELF IN ONE WINTER

"Your 7 H-P. Saw-Rig engine working wonderfully. It will surely pay for itself this winter."—ALEX. M. HUERTA, Tucson, Ariz.

VERY EASY TO START

"I am very much satisfied with the engine that I ordered from you. It is very easy to start and I did not have a bit of trouble with my engine so far. I am running a grist mill that is grinding corn with shucks, sawing wood with 26-in. saw, shelling corn with a 2-hole sheller, running a washing machine every week, pumping water when there is not enough breese for the windmill, and making ice cream for home use. I let my engine turn the freezer for me."—JOE JANYSSEK, Yorktown, Texas.

THINKS WITTE THE BEST

"This portable WITTE Saw Rig I have has the name of the best rig that was ever in this country. I have run a steam rig for 20 years. This is the first gas engine I ever had anything to do with and the best."—JOSEPH W. LOUCK, Muscatine, Iowa.

WITTE RUNS FINE

"I have got my 16 H-P. Portable Saw-Rig and it runs fine. It arrived in good shape."—WILL KLUG, Challis, Idaho.

Why I Call This Combination "Three-in-One"

Because with this combination you get an engine that can be used as a stationary power plant or a portable engine. It will not only do sawing required, but also light or heavy jobs on a farm. It is a sawing rig. It is a truck suitable for a variety of farm purposes. Both engine and sawing outfits removable from truck. This combination is both efficient and economical.

THOUSANDS OF OTHERS ON FILE

Quantity Production Makes Low Prices

WITTE Pumpers

The Highest Type of Dependable Pumpers

Get Your Water When You Need It and Keep It Running

No. 101

WITTE Direct Geared Pumper 2½ H-P.

Pump Standard Not Included In Price

There are many ways of raising water. As the ordinary well or cistern is usually less than 300 feet deep, a vertical lift pump of the single action type is the simplest and easiest to operate.

The WITTE Pumper may be set on the well or cistern top and bolted down, because there is scarcely any strain between the engine and the platform top. This pumper, being self-contained, very compact and easily bolted to your standard, acts very much like pulling on your boots.

In the direct geared pumper, however, there can be absolutely no slip for it is an all geared machine, the high speed gears being cut and the slow speed gears being machine cast and very heavy. This is an ideal stockman's outfit because it is so dependable. Also it is ideal for places where the user desires to pump against a pressure, such as to an elevated tank or a compressed air tank for household and sprinkling purposes.

The No. 101 is most highly recommended, because with this outfit you can any moment disconnect the two wood pitman arms, put a pulley on the 2½ H-P. engine which pulls 3 H-P. brake test, and you can saw up your winter's wood or do a dozen other jobs on the farm without buying a second engine. It also will pump from the deepest wells, for if the lift is too great, that is from 200 to 600 feet, you can easily purchase wood pitman rods which float and take off much of the upward pull. In fact, the best practice on any pumping rig is to use a wooden pitman rod so that there is less downward pull at all times. You have, therefore, a balanced load.

Of course for short lifts of under 200 feet, a steel pump rod is all right and if the engine is to be used for pumping only, then a 1½ H-P. WITTE pumper No. 102, will do the work also, but it will only do the other "lighter" work on the farm.

The pumper that works in rain or shine, sleet or snow, wind or calm.

No WITTE pumping outfit prices include either pump standard, cylinders or pipes, but we will gladly purchase and ship such equipment for you if ordered.

Both direct geared outfits are geared to operate at about 35 to 40 strokes per minute. The strokes are 5, 7½ and 10 inches, and are changeable at will on a moment's notice. All bearings are carefully bored and reamed and grease cups attached.

A typical scene is herewith shown of a No. 101 pumper by a party who pumps to his cattle trough at the same time that he also pumps to his house compressed air water tank. This party also has a pulley on the far side of the engine wherewith he operates many other machines on his farm, either bringing the machine to the pumping engine or removing the engine to the work, leaving the pump and its gears stand.

There's Only One Profit In a WITTE Engine

The No. 103 Double Geared Jack Outfit

The No. 103 WITTE Pumping Outfit is belted from a standard 2½ H-P. WITTE Engine to an extremely heavy **double** back geared jack which is clamped to your pump standard. This outfit requires a little more room than the direct geared, No. 101 and No. 102.

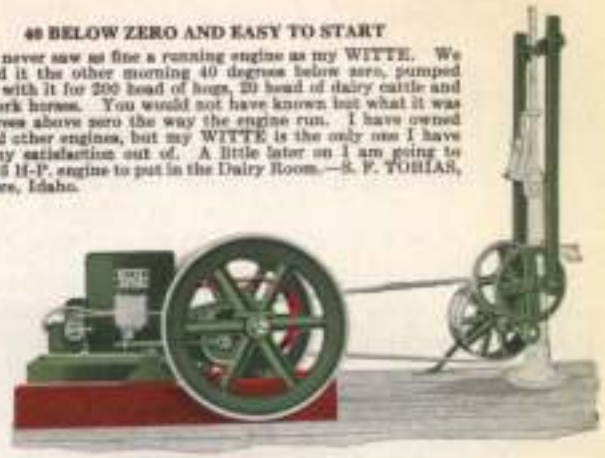
It is slightly cheaper in first cost. It is equally as strong and will lift from the same depth as the No. 101, but of course no water or grease must be allowed on the belt.

The No. 103 outfit is the highest class of a belted, **double** geared pump jack outfit on the market for the deepest wells, and there are no better, for the gears are machine cast. They are **double** and rather heavy. All bearings are carefully bored, reamed and fitted with grease cups. The pulleys are 15x2¼ inches, which makes it a very easy driving jack. As the jack is securely clamped to the standard, there is no strain between the standard and the well cock or cylinder.

With our standard engine pulleys this jack will pump from 35 to 40 strokes per minute. The standard strokes are 5, 7½ and 10 inch, which may be changed at will on a moment's notice.

40 BELOW ZERO AND EASY TO START

I never saw as fine a running engine as my WITTE. We started it the other morning 40 degrees below zero, pumped water with it for 200 head of hogs, 20 head of dairy cattle and the work horses. You would not have known but what it was 5 degrees above zero the way the engine run. I have owned several other engines, but my WITTE is the only one I have got any satisfaction out of. A little later on I am going to buy a 5 H-P. engine to put in the Dairy Room.—S. F. TOBIAS, Leadore, Idaho.



It is very easy to throw off the small 2-inch belt, take the engine to other work around the farm, and use it up to the capacity of 3 actual brake test horse-power. This makes an ideal unit for all around farm work.

The No. 104 is the same as the No. 103, with the single exception that it is a 1½ H-P. standard WITTE Engine and will only do the lighter work on the farm besides pumping.

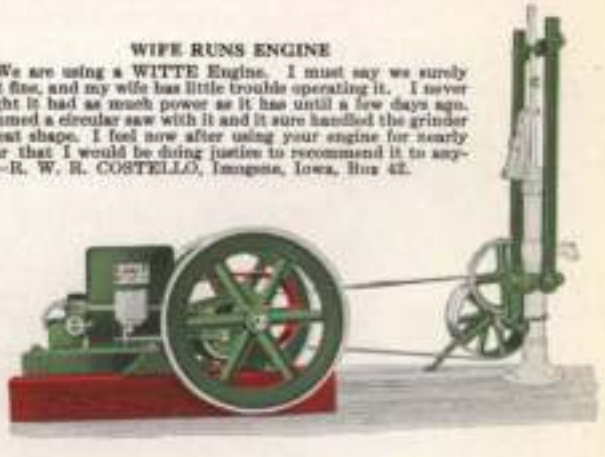
The No. 105 Single Geared Jack Outfit

The No. 105 **Single** Geared Pumping Outfit is exactly the same as the No. 103, is intended for lighter work when pumping, but it still has the 2½ H-P. WITTE standard engine, and it also has the same jack as the No. 103 with the single exception that it is a **single** geared jack instead of a double, and therefore the jack should not be used except for the lighter pumping work, as, for instance, the smaller cylinders and the shorter lifts, with no back pressure to pump against.

The 2½ H-P. engine may, however, be removed also, just as in the No. 103, and be used for all other purposes around a farm within a capacity of 3 brake test horse-power. For a still lighter job, where pumping only is required, or where the other work to be done by the engine consists of churning, washing machine, and the lighter work on the farm, the No. 106 makes the cheapest known high class pumping outfit on the market, but even so this is not comparable for a moment with the jacks sold at a nominal price with cast shaft holes and without grease cups. Such jacks are not worthy of attachment to WITTE Engines and we therefore cannot afford to catalog them, preferring to lose the entire sale rather than for the sake of a dollar in the price of the jack to furnish something which, from its very first day, always causes trouble.

WIFE RUNS ENGINE

We are using a WITTE Engine. I must say we surely like it fine, and my wife has little trouble operating it. I never thought it had as much power as it has until a few days ago. I gummed a circular saw with it and it sure handled the grinder in great shape. I feel now after using your engine for nearly a year that I would be doing justice to recommend it to anyone.—R. W. R. COSTELLO, Imogene, Iowa, Box 42.



These two pumpers are in no wise comparable with anything at present on the market. The grade of work is beyond comparison, and so far as known there is no competitive design even.

Buy from the Maker at Factory Prices

Attachments and Accessories
That Make Your Work Easier

Whether you have a WITTE Engine or not, these accessories mean much to you. Why have an engine standing idle if you can use it and save human labor?


No. 10 branch saw

As an ideal machine for cutting up all small wood around the farm, particularly dry limbs and branches, scrap wood, etc., this little sawing outfit will eat up more wood and create more stove wood and kindling up to a capacity of 6 inches or so diameter, than you have any idea of. It only requires a 2½ to 5 H-P. engine, depending on size of saw blade. (See Supply Circular for sizes and prices.)


Pole extension

The Pole Saw, herewith illustrated, is the No. 12 cord wood saw with a small extra attachment wherewith you can saw either poles or cord wood. If sawing poles, the outfit is rigged as shown. If sawing shorter timber or heavier, it is rigged as the No. 12 above. Everything is interchangeable, and this outfit is the last word said in a combined pole and cord wood saw. You have both here with only a small difference in cost.

The No. 12 and the Pole Saw are both ideal machines for those who wish to make money doing custom wood-sawing, where profits and earnings are to be considered. Saw blade usually 30". Horsepower required, 5, 7 or 12, depending on the timber.


Double geared pump jack

No matter what engine you have on your farm you will want water, and water comes from below. You see herewith a **Double** Geared Pump Jack that will lift it from any reasonable depth up to 300 or 400 feet. It is a jack that will fit to any engine. When the 15x2¼" pulley runs about 200 R. P. M. the pump gives 35 strokes per minute. It is **double** geared, clamps to any standard and to almost any pump rod. It is well braced. Every bearing in it is carefully bored and reamed, and grease cups are attached. For the heavier work a 2½ H-P. engine is desirable, but it will easily operate on the lower lifts, such as up to 200 feet, and a smaller cylinder with a 1½ H-P. engine.

This No. 12 Cord Wood Saw is the last word said in a standard cord wood saw frame. There is not a machine on the market comparable with it. It usually uses a 30" saw blade. It will cut up the largest wood that you will desire to handle. It is wide and rugged and liberally braced with iron rods. The saw mandrel is 48 inches long, 1½ diameter, high carbon steel. The fly-wheel is 90 lbs. and the pulley wide enough for a 6-inch belt. It is well guarded and so arranged that even poles may be sawed if on a slight angle. All corners are braced with heavy castings. The bearings are of anti-friction metal with grease cups. Studs, bolts, double lock nuts and lock washers wherever required. The frame is of hardwood throughout. There may be a cheaper machine made, but there are absolutely none better. For saw blades larger than 30" add $1.00 per inch. (See Supply Circular for price and dimensions.)


No. 12 saw frame

Extra Trucks

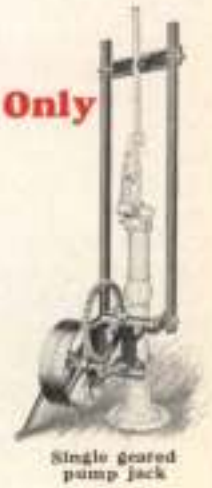
I sell trucks for all engines from about 1½ H-P. up to 12. The 1½, 2½, 3½ and 5 H-P. trucks are of semi-steel construction and pull around by hand. Those of 5, 7 and 12 H-P. sizes are to be pulled by two horses. (See price list.)


Hand portable truck


Horse portable truck

For the Lightest Work Only

The **Single** Geared Jack, herewith shown, is the same as the double geared shown at the left, but is usable with a smaller engine, because it is intended for lifts of nothing up to 100 feet or so. It is single geared, but otherwise is just the same as the double geared.


Single geared pump jack

A High Quality Engine at Factory Prices

In Answer to the Man Who Asks—

"Will It Pay to Buy a Sawing Outfit?"

Naturally I must say, "Yes." I have been furnishing sawing outfits for nearly half a century. I do not believe the farmer has any line that is more profitable. It is real money—cash. Besides he gets his own stove wood, he gets rid of his spare timber, or he cuts it up for his neighbor at an immense profit. Everyone cannot afford to have a sawing outfit any more than everyone could afford to have a threshing outfit, and those who do not have a sawing outfit pay a high price to those who do have it.

Sawing wood is easy. It all depends on whether or not you get a reliable sawing outfit, a real money maker, such as you dream of but you do not always get, unless you are careful enough to select a WITTE Sawing Outfit.

There are many grades of timber—wet and dry, hard and soft, tough or not. I make every kind of sawing outfit, the buzz saw combination for the farmer's home with which to use a 2½ to 5 H-P. engine—that's a more or less home affair, though he can do work for his neighbors. The 3-in-1 saw rig with its 5 or 7 H-P. engine, which is a portable, from which you can even remove the stationary engine, brings these outfits into the commercial class, where the man does the work for the big money there is in it. Here he cuts up the larger pole wood or the cord wood and splits it. If, however, he does not have cord wood or large pole wood but saws down trees and expects to cut them into stove wood, or even grate wood, or logs, then by all means he should have a log and tree saw, as shown on page 22 of my catalog.

The way this log and tree saw works is altogether different than the large pole or the cord wood saws, for you first drop the tree with the tree saw. You then turn the wheels and the saw and cut the logs into any length you please, usually stove wood lengths. But while the log saw is cutting the next block, you have ample time in which to crack or split with your axe these blocks into stove wood size. You are, therefore, running a log saw at the same time that you are splitting, and you do not "tote" any of the timber. This is rather reversing things, but you can see that it is far more modern, because there is no laborious lifting and carrying around of the cord wood or large branches. You and your machine are working at the same time.

Imagine also what you would do if you had trees of 2 to 10 feet in diameter. Sawing them into cord wood would be quite an undertaking, but the biggest job would come when you split them with wedges, and they don't always split just right. With the log and tree saw that is all easy work. You cut a log off as you would a cake of cheese, and while it is cutting the next cake you turn it over flat and crack it into a thousand pieces. So, my friends, you can see that it is simply a question after all of "How much timber have you?" If you have the timber, I can show you how to make money, plenty of it. If you haven't got the timber, I don't want your money. I have gotten beyond needing it, as you well know, and if I cannot help you make some money I feel I ought to help you save it.

(Signed)

Ed. H. Witte

57 Years in Business—You Take No Risks

Where and How WITTE Engines Are Built

A Trip Through the Modern WITTE Factory

This is merely one corner of the big WITTE foundry where every casting from cylinders and fly-wheels to the smallest parts are made in metal flasks, or boxes, with the most modern appliances possible for accurate machine molding. There is no hand work, and every pattern is either aluminum or brass. The human element has been removed as much as possible by making the patterns permanent and allowing the machines to do the rest.

This shows a small semi-steel cylinder of the 1½ to 12 H-P. style, being cross bored to receive its hard, die cast bearing, so that both your bearings may be removed and replaced in less than four minutes time.

These fly-wheels are being finished on very expensive and complicated semi-automatic machines especially built for the purpose. There are from five to six cutters working at one time. This is possible because the castings are heavy and uniform. A wheel is completely finished both on rim and in the bore before it is removed from the machine. This is one reason why WITTE fly-wheels always run dead true after they are clamped on the crankshaft.

Here is a special vertical, heavy duty drill press with several drills and reamers for cross boring pistons in a fixture. This cross boring is done after the piston is completely finished on the outside, therefore a very accurate and smooth hole is obtained and absolute alignment is secured.

Throughout the WITTE factory quite a large number of multiple, heavy duty drill presses are used, such as the above. In these will be seen multiple drilling and tapping heads. Naturally, when you have four or six drills in one the cost of drilling the six holes is only the price of drilling the longest one, because they all work at once. Furthermore, the operator can easily keep all four drill presses going at once, so that many a time there are from 24 to 30 drills or taps at work, meaning just one-twenty-fourth of the time, perhaps, required on an ordinary drill press.

It should be noticed that no holes are drilled in the WITTE factory on WITTE engines that are not drilled by jigs with hardened bushings therein, so as to locate the holes without any measurements. In this way an operator merely drills holes. He does not have to locate them, and you are assured that 20 to 40 years hence repairs will always fit because their location is within one-thousandth of an inch accurate.

This shows one of several full-automatic gear cutting machines. The illustration shows six small crank gears, one on top of the other on the center spindle, hence this cutter is working on six gears at once and the operator can take care of half a dozen machines besides sometimes doing some other work, such as preparing for other gear cutting. These machines are full-automatic from start to stop, and are electrically equipped with a bell and automatic stop. The expense of cutting gear teeth in this manner is less than 10c per hundred teeth.

Ordinarily one of the most difficult jobs on a crankshaft is to accurately turn the crank pin. This however is very easily accomplished in several large crank pin turning machines especially built for us.

Where formerly it cost anywhere from a dollar upwards to turn a crank pin, today this is possible not only at a cost of less than one-tenth that price, but far more accurately than ever before.

These machines are semi-automatic, but because of the way in which the machines are built and adjusted it is practically impossible for the operator to make an error.

57 Years of Progress and Development

The multiple drill press, herewith shown, drills and taps three connecting rods, or six holes, at one time. It is semi-automatic, the holes are located by jigs and fixtures, and an error is almost an impossibility. There are a number of these wonderful machines in operation continuously to keep a sufficient flow of connecting rods going through the WITTE factory.

Nearly a dozen Cleveland automatic screw machines are in constant use, economically turning out anything that is round, hexagon or square, that can be made from special bar steel. These machines require no adjustment and no attention during the entire working day from the time they are set and started, except at such times as they are out of 20-ft. bar steel, when a new bar need only be slipped in again. One operator only is necessary, hence it can be easily seen how economical must be the production of these wonderful machines, and the immense saving per annum.

We also have quite a number of similar machines for finishing steel castings, whereby an operator can run from two to three machines, because about the only work he does is to start and stop when a casting is finished.

Several hardening and annealing furnaces are used for softening certain castings and parts and also for hardening thousands of steel parts daily. These parts are principally screw machine parts made on the automatics, then hardened here and finally ground on the grinders. It is a well known fact that a hardened piston pin will last years and retain its size, while a soft one will wear rapidly and require adjustment or constant changing.

It is also well known that hardening piston pins or similar work sometimes increases or decreases their size, hence they must always be ground to an absolute size **after** being hardened.

Note the electric pyrometer on the wall just above and to the left of this furnace. It measures the temperature of the white hot inside of the furnace, for a variation of only 50 degrees, not visible to the eye, would ruin the whole batch of hardened parts.

After being hardened the whole batch is then dropped into the water tank in front, where running cold water is supplied.

On this assembly floor are some thousands of machined parts, such as you would need for repairs, perhaps, but these are supply stock from the stock room and assembled at the rate of one engine per five minutes, because there are quite a number of men in the "line." This assembly works just the same as in automobile practice.

No hand filing is required or permitted.

After the engines are assembled, they are immediately passed to the painter where bright parts are covered and all other parts sprayed with paint. This insures that no paint will get into the bearings or oil holes, also that paint will get where brushes cannot put it and it leaves a nice, glossy finish, something that will be easily wiped with a smooth rag or waste.

It is a well known fact that, like a new automobile, engines must look well, otherwise users will **not** take enough pride in their purchase to keep it looking well.

In the old days years ago it was necessary to first test the engines for anywhere from a week to 10 days in order to make them work right. That was because there were more or less imperfections. How accurately the work is done in these days may be judged from the fact that month after month 2,000 engines per month are tested by one or two men, and as shown by brake test in illustration the horse-power is measured, and the performance of the engine by other devices and instruments is recorded, so that a large majority of the engines show 100% perfect within 10 minutes of the time they are started. It is no longer a "test", the correct word now would be "breaking them in," and the work is similar to breaking in a new pair of shoes or a new hat. Your shoes and hat may be perfect, but they must be limbered up.

200,000 WITTE Engines Are In Daily Use

3 HOUR SERVICE

Guarantees Quick Delivery

Many times you have been exasperated by long delays in receiving a shipment. Sometimes even your shipment has been sent to the wrong station.

We have perfected a new traffic system that enables us to ship any **accepted or cash order** for **standard** equipment, shown in this catalog, within three hours from the time we receive it.

There are five daily mail deliveries to us from our postoffice.

Your order is then rushed through the billing department and then to the traffic manager. Fast and accurate service is given by these experts.

As soon as checked the order goes to the shipping department where hundreds of crated, **standard** outfits await it, and your engine, saw rig or pumping outfit is on the way.

A railroad spur track runs right in the back door of this department.

If quicker delivery can be given you from Pittsburgh or San Francisco, the order is transmitted by wire, at our expense, but inside of three hours, if there are no **specials** in your order, a fast train is carrying your shipment to you and the station that you specified is the point that we guarantee safe delivery to.

From Kansas City, Mo. Pittsburgh, Pa. San Francisco, Calif.

We can beat this delivery even if you will wire, or have your bank wire us your **standard** equipment **cash orders** at our expense.

Customers ordering on our Easy Payment Plan receive the same prompt and courteous treatment accorded cash customers, but the necessary information on which to base credit must be given on the acquaintance blank mailed you.

Service Intelligent and Useful

There was a time many years ago, as there was in automobiles 25 years or so ago, when it took personal service to direct a purchaser how to operate even as simple a machine as an internal combustion engine, but unfortunately at that time it was necessary for an operator many a time to explain what to do when the "critter" did not perform according to rule, when the carburetor did not "mix", when the make and break spark did not make a spark, when the battery wires did not furnish any "juice", or when main bearings had an unaccountable habit of always getting loose in spite of frequent tightening, but that was long before the days of perfected carburetors, before the simple little jump spark was invented and used so extensively on automobiles, before a simple and "foolproof" magneto was invented, and before batteries were entirely dispensed with, to say nothing of 10,000 other improvements which have brought the stationary engine down to the same perfection as the high grade automobile. It is no longer necessary for the user of an internal combustion engine to be a mechanic when a woman can successfully drive from New York to San Francisco in an automobile.

A WITTE Engine need not be spoken to in English. Its design, operation and performance are equally as understandable in all of the other 3,424 languages and dialects of the world, and the American user now knows that since WITTE Engines are so universally used in foreign countries, thousands upon thousands of miles from home, and are repurchased year after year, that a simple instruction book, such as is furnished for the WITTE as well as for all autos, marine gasoline engines and hundreds of other machines, is sufficient information for the user. This instruction book is furnished in the four great languages—English, French, German and Spanish.

WITTE
Instruction Book

This 32-page instruction book illustrates not only the engine, but all its parts, how to start, how to properly time, how to figure pulley speeds, to make foundations when necessary for large engines, how to repair your own engine, in fact how to operate it, together with every other machine, such as sawing and pumping machinery, to which WITTE Engines are attached.

This instruction book is not only written by the designer but has been very carefully gone over by a dozen others, so as to include every possible question that could be asked, and to answer it.

For instance, it is only necessary to turn to page 8, paragraph 22, to find out just how easy it is to remove the fly-wheel from the biggest WITTE Engine; and if you want a repair, it is plainly shown both by illustration, name and number. Even the repair price list is furnished with an instruction book.

This is all possible because of standardization. The parts are as nearly alike as two nails and far more accurate. Further they are made that way year after year without change, but in dealing with the factory the purchaser of a WITTE Engine is always assured that he has an opportunity of getting first-hand advice from the maker of the engine, by letter or wire, and that this information comes from an engine man and not from a school boy or minor clerk.

Spare Parts

When it comes to repairs and new spare parts, remember the WITTE organization carry at their various offices, thousands upon thousands of parts which are just the same as the new parts which are being made daily. Not only that, but they have repair parts in stock for engines over 40 years old, and they fit, too. When you buy a WITTE Engine, you buy one in which those parts liable to wear first are the very ones that are the cheapest and the easiest to replace, because the engines are made that way intentionally. If bearings wear, they are not a solid part of the engine bed. If sparking points wear, a new spark plug complete is cheaply obtainable. If a spring stretches or compresses, it is replaceable in a moment's time at a very low expense.

You are absolutely assured that in the WITTE you have the highest perfection, standardization, duplication, and interchangeability of parts, no matter where used or sold throughout the world.

Quantity Production Makes Low Prices

A Real Export Department

Sells WITTE Engines to All the World

They are sold to 52 different nations through hundreds of foreign merchants and machinery houses

The WITTE products are bought in far off Japan, China, British India, Australia, Russia, Germany and England, and whether in Brazil under the Equator, or in Alaska under 20 feet of snow, they work just as well and never fail.

Even on the high seas there are thousands of WITTE Engines used in sailing vessels for the hoisting of sails and cargoes. Note small photo of a Dutch schooner hoisting cargo at Rotterdam, Holland. (Cut No. 1.)

Cut No. 1

WITTE Engines are carefully boxed and braced for safe ocean transportation. Just see how they transport them in Korea on two-wheeled carts. (Cut No. 2.) Notice how they have to unload them in far distant ports, where they have no modern docks but where steamers must unload into barges or Bum boats. (Cut No. 3.)

Think of the competition that the WITTE Engine has with the Japanese, who here pumps water for his rice field by man-power. (Cut No. 4.) Imagine the small amount of water that he can pump per day in this ancient manner, and then compare it to the latest in the shape of a WITTE Engine and Centrifugal Pump pumping thousands of gallons of water in Japan (Cut No. 5), perhaps only a few miles from his ancient neighbor. The world-wide successful use of WITTE Engines is founded upon performance.

If you will, compare the WITTE Log and Tree Saw or a large WITTE Engine running an American Saw Mill with the ancient way of sawing timbers, as shown herewith. (Cut No. 6.)

Cut No. 2

Of course labor is cheap in many of these countries, yet the very fact that WITTE Engines are purchased and sold there to enterprising users proves after all that a gallon of low grade fuel will not only save many dollars in the hiring of native help but will earn good profit over such ancient methods.

Cut No. 3

There's Only One Profit In a WITTE Engine

The World-Wide Successful Use of WITTE Engines is a Further Guarantee of WITTE Quality and Performance

Cut No. 4

Think of the thousands of square miles of foreign timber that could be cut down and marketed with the WITTE Log and Tree Saw, instead of doing it with axes and wedges. (Cut No. 7).

The WITTE Export Department corresponds regularly in the four great languages—English, French, German and Spanish, and frequently in a half-dozen others. Literature and instruction books are furnished likewise, and a full and complete knowledge of export technique, ranging from forms, rules, laws, shipping documents, steamer routes and regulations, clear down to the unloading of the WITTE Engine in your own native country, be it Siam or Alaska, Australia or Russia, is at your service.

Cut No. 5

We even furnish moving picture slides to our foreign dealers and in their native language.

It will probably surprise many to know that practically half of all the WITTE Engine business is of foreign origin. That we do business in over 25 different kinds of money, in 52 nations, 10 to 15 languages, and in places where sometimes it takes four months to deliver the engine to the user, and all done in the face of the fiercest competition which Europe, Asia and America can furnish.

Although there are said to be 3,424 spoken and written languages and dialects in the world, machinery such as WITTE Engines and sawing outfits speaks and is understandable in all of them. The machine will be an obedient worker in any land and needs no interpreter to direct it in its tasks.

Cut No. 6

Cut No. 7

Mexican families enjoying the installation of a big WITTE in a new factory across the Rio Grande

How Some People Buy Engines

Sometimes a farmer comes in to his nearest town and sees an engine on display. He is told that it is a two horse-power and will do all his work. The dealer doesn't know anything about engine construction or the different problems a farmer has to solve in power work, but he recommends the engine, takes $20.00 or so down and the farmer's note for the balance in sixty days, and the farmer loads up his engine and takes it away. Later the farmer may find that it is not a two horse-power engine, that it lacks power, that he could have bought a better engine for less money and on better terms, and that in the end he will perhaps have to get another engine for the work he needs, and that he has lost time and money on his investment. What has he done but just helped the dealer to a **fat profit?**

Another farmer picks up a mail order catalog. He notes a low price, altho there is not much description or illustration. If he writes to the big mail order house, he gets a letter probably written by a young man who knows nothing about engines, cannot answer any technical question, can't tell him the speed of his pulleys, or how big a saw he needs for certain logging work. However, he buys the engine on the general reputation of the firm. Now later he finds that his needs are not suited, the engine is cheap in construction and lacks many improvements it should have. He hasn't saved any money, he has lost money. If anything happens he has a hard time getting new parts. Perhaps in a year or two the engine simply rattles to pieces. He has a **dead loss** on his hands.

A third farmer investigates before he makes such an important purchase. **He** gets a WITTE catalog. He notices the complete and beautiful illustrations. He reads a careful description of every part. He sees how the engine is built and the **reason** for everything. He realizes that WITTE is an engine builder, a specialist, and that for 57 years WITTE engines have been giving satisfactory service the world over. He knows he can always get repairs or parts. If he wants advice about his needs, he will get an expert and honest letter from WITTE, written by a man who is an engine maker and practical in every respect. Finally he observes that WITTE'S price is very low, because WITTE sells direct to the user and cuts out the dealers profit. He notes that if he needs accommodation WITTE also gives long easy terms.

Now suppose the farmer comes to the city and investigates personally. He goes out to the mail order house. He finds that the big mail order house keeps engines in stock like they keep clothes and shoes and groceries. They don't make engines. Every year they hunt around for a manufacturer, and having set a price give him an order to make so many engines. This maker then must skimp and figure pretty hard to make any money. So he cheapens here and cheapens there; he can't afford to put on the latest improvements. Instead of steel he uses cast iron. Perhaps the engine hasn't got a throttling governor. Perhaps it is the same design, heavy and underpowered that was used ten years ago. And out at the mail order house there is no one who knows anything about engines; they just sell them AT A PRICE.

Now when this farmer visits WITTE he sees a great plant covering over five acres. He sees men who from father to son have been engine makers. He sees that the WITTE engine is the very latest development and has many great special advantages for his work. If there is any question he wants to ask, or any advice, he gets it straight from **experts.** He understands that 200,000 WITTE engines are in daily world-wide use. He realizes that because WITTE specializes in engines, and sells direct without a dealer profit, that WITTE'S prices are the lowest. He is safe in doing business with WITTE and he buys an engine and gets a lifetime guarantee with it and a lifetime **money earner.**

He gets an engine exactly suited to his needs. He gets an engine that is simple and economical to run. He gets the finest materials and the most expert, tried and proven workmanship. And he knows that in years to come if he ever needs new parts he can get them right on the dot from WITTE. And finally, for practically the same investment, he gets an engine so superior in every way that no makeshift mail order engine can possibly be compared with it. And he finds at his disposal always friendly, honest expert advice on all power problems, such as sawing, pumping, light and heavy duty jobs, etc. So this farmer makes his deal and it is a **good** deal; he saves money now and for years to come, and there are no later regrets. That is the way to buy an engine. **Look before you leap.**

A High Quality Engine At Factory Prices

Free Engineering Service

There is perhaps nothing more pitiful and unsatisfactory to the WITTE firm than to receive orders, or requests for quotations, from people who do not know exactly what they ought to buy. Frequently a customer will write in for a pumping engine, specifying a certain style of pump, with power to lift water up a hill or a long distance into a tower. Perhaps his water is more than 30 feet down from the pump, yet he does not know that water cannot be sucked that far, that the cylinder must be nearer the water. He may be ordering a pump which will require approximately 24 hours per day to keep the tank full, or he may order it far too big and powerful, causing a customer a much greater investment than is necessary. A pressure pump is an altogether different pump from one that is intended for small lift and discharge only, such as a centrifugal pump. A deep well pump is always required when the water is far down.

If a customer wishes to saw up 48-inch logs into lumber it would be very foolish to order a 12 H-P. sawing engine, yet if his logs were 12 or 14 inches that might be an ideal power plant for a small saw mill, and far better and more economical than a 30 H-P. outfit. Many a time someone orders a 2½ H-P. engine for doing 2½ to 3 H-P. work. While WITTE Engines pull more than their rated horse-power, it is always advisable to purchase an engine one-third larger than the greatest load, yet many a time some good customer sends in an order for an engine far larger than the WITTE Engineering Department would recommend.

For that reason special arrangements have been made to furnish, free of charge, speedy expert engineering service, to the best of our knowledge and belief, to anyone wishing to obtain at first hand reliable information before they really buy.

WITTE Engineers can figure out for you your pulleys and other power transmitting machinery. They can tell you what size pipe or what style pump is best, and may save our customers thousands and thousands of dollars per annum.

No changes of major parts on WITTE Engines are permissible, and yet many a time the engineers can make a little suggestion showing how standard engines can be used on machinery of some construction when the user or the manufacturer could not figure it out to his own satisfaction.

It is a pleasure and we deem it a duty to offer this service to the fullest extent **Free.**

57 Years In Business—You Take No Risks

How To Select Your Engine

High class modern Engines cost even less now-a-days than the old fashioned ones made by makers who cannot afford or fear to change

Before You Buy An Engine You Owe It To Yourself To Ask The Seller a Few Questions

1. Is it a Throttling Governor Engine?—The WITTE is.

If it is not, you can only burn gasoline and none of the dozen cheaper fuels, such as kerosene, distillate, naptha, solar oil, gas, etc.

The great saving on some of these cheaper fuels will pay for the engine itself, over the price of a straight gasoline engine.

A hit-and-miss governor engine cannot use anything but gasoline, because it will not sufficiently vaporize the cheaper fuel mixture.

2. Is the Engine WICO Magneto equipped?—The WITTE is.

If it is not, it is either battery equipped, which is expensive for battery renewals, and furnishes a weak spark as soon as the battery is slightly used; or if magneto equipped the magneto is of the rotary armature type, which on the slightest wear to the bearings cuts out and short circuits. A WICO Magneto is the only magneto which has a single moving part and that is vertical with only one one-eighth inch travel.

3. Is the Engine one of the Valve-In-The-Head construction?—The WITTE is.

This is the most economical form of an engine, because there are no corners or pockets where carbon can form or fuel be wasted. This form of a cylinder is now used almost exclusively in every airplane, Diesel Engine, both land and marine, also on all gasoline marine engines as well as a large proportion of all automobile engines.

4. Has the Engine a Speed and Power Regulator?—The WITTE has.

If it has not, then you must first shut-down your engine to change the speed, or the regulator is of such construction that it does not save fuel.

5. Has the Engine Hard, Die-Cast, Removable Bearings sitting on finished iron surfaces?—The WITTE has.

Most other engines have ordinary babbit bearings, poured into an unfinished iron pocket. If you cut out or burn out a bearing you are at great expense to have it replaced, or if, like some of the cheaper engines, the separate bearing rests on soft babbit, then both bearing and support melt at the same time.

6. Are the Fly-Wheels clamped onto a straight key?—The WITTE Construction.

If fastened with a taper key, it is quite an undertaking to remove a fly-wheel and a much greater one to attempt to refit a key and to keep the wheel from wobbling.

7. Does the Engine Builder specialize on engines only?—The WITTE does.

Nine-tenths of other builders build almost everything else besides engines, from milking machines to manure spreaders, from electric motors to steam engines. That is not the WITTE plan.

8. Has WITTE been in the internal combustion engine business long?—WITTE has.

For 57 years father and son have done practically nothing else than specialize, standardize and practice the utmost economy in manufacture. Two whole city blocks are devoted to nothing but gas engine production. 57 years of constant effort, research, and refinements. WITTE is the oldest engine builder in the U. S. today, yet the plant and the product are 100 per cent efficient.

9. Can you get Repairs on your engine 25 to 30 years from now?—You certainly can if it's a "WITTE."

Few engine builders, and practically no jobbers or mail order houses, are prepared today to furnish repairs on an engine over five years old, or that will fit.

WITTE today is still furnishing repairs on all the engines made as far back as 40 years ago, and is just getting his stride in real mass production, so that in all probability the business having always been a family matter, you will quite likely be able to purchase accurately-machined and reasonably-priced repair parts 25 to 30 years from now from Ed. H. Witte, Jr., now in his cradle.

"Sterling" on Silver—"WITTE" on Engines

What Size to Buy

Be Sure to Buy it Big Enough to Handle Your Largest Job

If Type "C" Engine with iron base and tank within is desired, see page 5.

The Standard. 1½ to 12 H-P. Type "B"

The intelligent purchaser when selecting an engine, will first consider all the various jobs which he will have to do with it, for except in special cases it may be undesirable to purchase two engines. He should, therefore, group his work so that one engine may do quite a number of jobs, and get that engine sufficiently large for the largest job, because the WITTE Engine Speed Retarder and Power Regulator will enable him to reduce the speed of the engine and reduce the amount of power developed, so that any engine so purchased will be economical for doing work far below its rated horse-power, yet sufficiently strong wherewith to do the larger jobs.

Of course this must be done in reason. A 5 H-P. for 2 to 5 horse-power work. A 12 perhaps for 5 to 12, and so on.

There are, however, many places where it would be far more profitable if the purchaser would separate his work somewhat and purchase two engines. For instance, pumping work from a well had best be done with a 1½ or 2½, never except for irrigation and heavy work with a larger engine, yet if the user requires a 5, 7 or 12 for other work, there is a great opportunity for fuel economy in using two engines. Likewise, no 30 horse should ever be purchased for work smaller than 12 H-P. It should be remembered that every engine should be purchased about one-fourth larger than the greatest load for several reasons.

First, engines will deteriorate slightly in horse-power in time. Second, friction on machinery to be driven will increase with age. Third, the user of WITTE Engines soon learns that he needs more power than ever because of the expansion of his business, hence he needs some to take care of that. Fourth, the man who buys an engine large enough has far less troubles than the one who purchases one too small.

Generally speaking, the 1½ to 12 H-P. either Type "B" or Type "C", are the popular engines, both in style and price. The Type "B" is medium light weight, on wood skids and more or less movable, while the Type "C" is ideal for mounting on floors or foundations.

The Type "B" also at times is furnished without the skids, cast iron legs, or even with special supports, in large quantities to machinery manufacturers in conjunction with their own machinery.

The Type "C" is many times furnished to such manufacturers also for direct driven hoists, pumps, and other special machinery, all of which is usually mounted on a **cast iron base**, making it a combined unit.

On the larger engines, especially the 20 and 30 H-P., it is desirable that they operate on a concrete foundation, though for saw mill and similar work a pair of heavy timbers or two large logs embedded in the ground are frequently used.

The Heavy Duty Type. 20 and 30 H-P.

This engine is of very liberal proportion, slower in speed, very heavy in construction, designed for very heavy and continuous use with gear driven water circulating pump. These two engines are absolutely dependable up to even more than their rated horse-power, and are just as reliable on the last hour of a month's run as the first, because of the 24-hour oiling system, water cooling system, and many other features of the utmost durability and reliability.

These two engines in particular are ideal for oil fields, irrigation, large industrial plants, etc. While the price, because of their construction, is a trifle higher per horse-power than the more popular priced 1½ to 12 H-P., the difference is easily accounted for by the greater weight, strength and engineering details, notwithstanding their similarity to the balance of the WITTE line.

200,000 WITTE Engines Are In Daily Use

What WITTE Makes and Sells

Sizes and Specifications

TYPE "B" ON SKIDS. (See Pages 3 and 4)

Rated H. P.	Will Pull	R. P. M.	Bore	Stroke	Crank-shaft Dia.	Fly-wheel Dia.	Plain Pulley Dia.	Plain Pulley Face	Floor Space Required	Extreme Height	Hopper Water Capacity (gals.)	Fuel Tank Cap. (gals.)	Shipping Weight Crated (lbs.)	Shipping Weight Boxed for Export (lbs.)	Bentley Code Word
1½	2	600	3¼"	5 "	1¼"	15½"	5"	3¼"	22"x32"	21 "	1½	1	235	290	ZYRAL
2½	3	600	3¾"	5 "	1¼"	16½"	5"	3¼"	22"x32"	21¼"	1¾	1¾	250	300	ZYREM
3½	4	550	4¼"	6 "	1¼"	19 "	6"	4¼"	26"x42"	24½"	2¼	2½	385	445	ZYRLA
5	6	450	5 "	6½"	1⅝"	24 "	8"	5¼"	29"x49"	29½"	5	3½	570	710	ZYRME
7	8	400	6 "	7½"	2⅛"	28 "	10"	6¼"	33"x55"	33½"	7½	6¼	820	950	ZYROP
12	13½	360	6½"	11 "	2⅞"	35 "	14"	8¼"	38"x66"	40 "	12	9	1280	1580	ZYRPO

TYPE "C" ON IRON BASE. (See Page 5)

1½	2	600	3¼"	5 "	1¼"	15½"	5"	3¼"	22"x29½"	21 "	1½	1¾	260	325	ZYPIA
2½	3	600	3¾"	5 "	1¼"	16½"	5"	3¼"	22"x30"	21¼"	1¾	1¾	265	330	ZYPKE
3½	4	550	4¼"	6 "	1¼"	19 "	6"	4¼"	26"x34½"	24½"	2¾	2¾	415	500	ZYPMO
5	6	450	5 "	6½"	1⅝"	24 "	8"	5¼"	29"x41"	29½"	5	4¾	630	770	ZYPPY
7	8	400	6 "	7½"	2⅛"	28 "	10"	6¼"	33"x48"	33½"	7½	8	910	1025	ZYPYP
12	13½	360	6½"	11 "	2⅞"	35 "	14"	8¼"	38"x57"	40"	12	11	1565	1655	ZYUVT

HEAVY DUTY ON FOUNDATIONS. (See Page 6)

20	23	300	9 "	12"	3½"	43"	20"	10"	51"x72"	48"		13	3000	3300	ZYKYR
30	34	275	10½"	15"	3⅞"	56"	24"	12"	61"x82"	59"		20	4400	4800	ZYSAM

PUMPERS. (See Pages 32 and 33)

No.	Engine H. P.	Overall Dimensions	Total Height	Suction Lift in Ft.	Shipping Weight Crated	Shipping Weight Boxed for Export	Code Word (Bentley)
101	2½	22"x4'-0"	5'-0"	300	540	590	ZYSUB
102	1½	22"x4'-0"	5'-0"	200	530	580	ZYSYS
103	2½	22"x7'-6"	5'-4"	200	540	590	ZYTAN
104	1½	22"x7'-6"	5'-4"	100	530	580	ZYTEP
105	2½	22"x7'-6"	5'-4"	100	535	585	ZYTNA
106	1½	22"x7'-6"	5'-4"	50	530	580	ZYTOR

All Pumpers Working 30 to 40 Strokes Per Minute

BUZZ SAW COMBINATIONS. (See Pages 28 and 29)

H. P.	Length	Width	Height	Dia. of Saw	Dia. of Fly-wheel	Best for Wood	Weight Crated	Weight Boxed for Export	Code Word (Bentley)
2½	7'-0"	34"	3'- 7"	18"	10½"	Up to 4"	425	485	ZYTPE
3½	7'-6"	34"	3'- 8"	20"	11 "	2" to 6"	540	630	ZYTRO
5	8'-0"	34"	3'-10"	24"	12 "	4" to 8"	740	890	ZYTUS

3-IN-1 COMBINATIONS. (See Pages 30 and 31)

H. P.	Length	Width	Height	Dia. of Saw	Best for Wood	Weight Crated	Weight Boxed for Export	Code Word (Bentley)
5	10'-0"	5'-6"	4'-2"	24"	8"	1435	1800	ZYTYT
7	10'-0"	5'-6"	4'-6"	28"	10"	1690	2050	ZYUBZ

LOG AND TREE SAWS. (See Pages 20 and 21)

Length	Width	Height	Weight on Handles (Lbs.)	Length of Saw Blades	Best for Trees	Weight Crated (Lbs.)	Weight Boxed for Export (Lbs.)	Code Word (Bentley)
8'-6"	3'-2"	3'-3"	38	5'-0"	1 Ft. to 5 Ft.	530	700	ZUYBG
Longer Blades to Order							Log Saw Only	ZYUFD

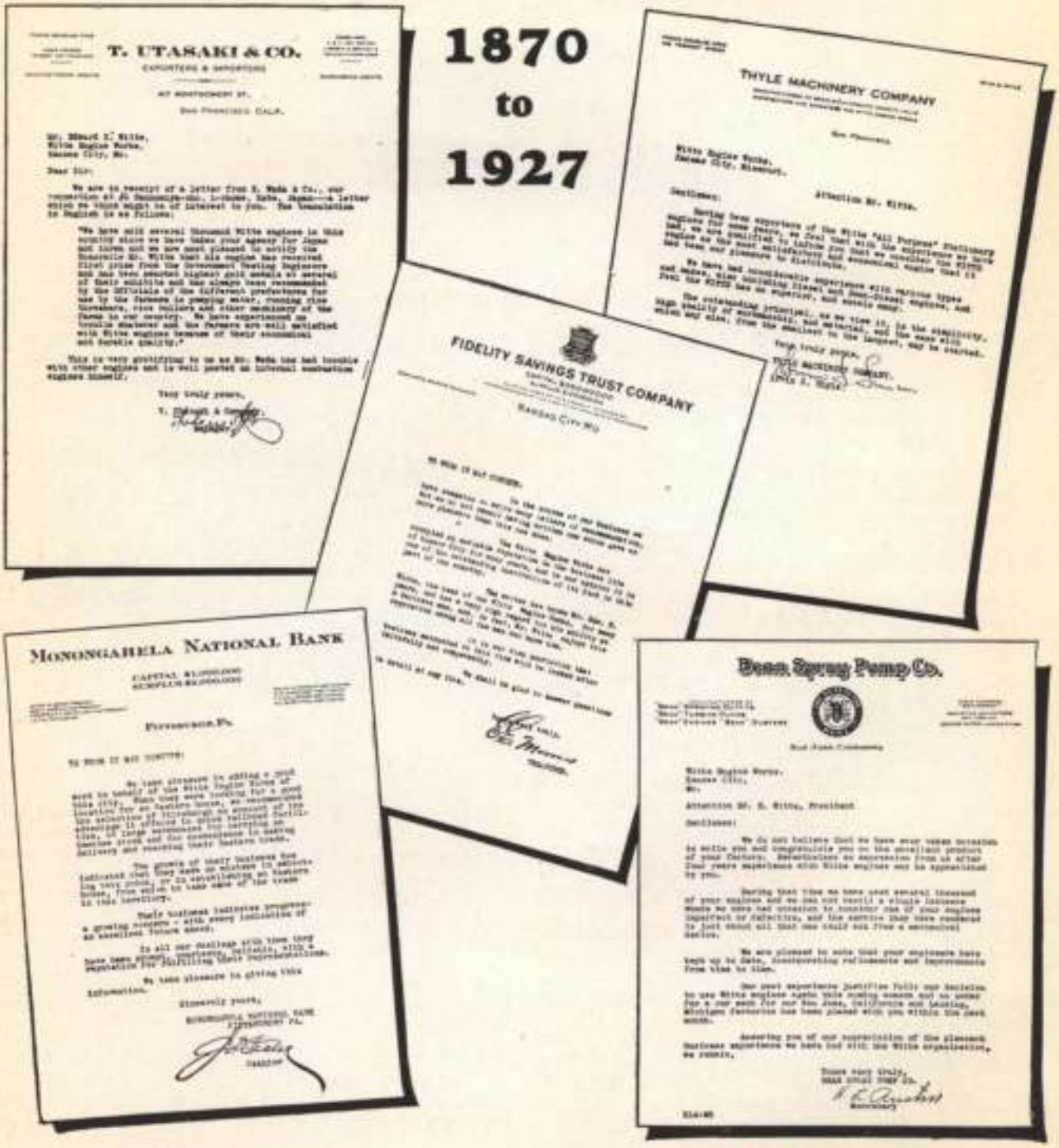
Every engine comes complete, ready to run, with pulleys, starting crank, magneto, lubricator, grease cups, oil cups, speed regulator spark retarder, wrenches, pliers, oil can and can of grease. Saws and belts on sawing rigs and pumpers are included only when specified.

Interchangeable Parts Without Hand Fitting

It's Safe to Buy from WITTE

Ample Finances, Lifetime Guarantee, 57 Year-Old Record Insure Your Being Dealt with Fairly

1870 to 1927



Quantity Production Makes Low Prices

How to Order Properly

To Insure Against Delay and Misunderstanding

To order an engine properly is a serious matter, far more so to you, the future user of the engine, than to me, the maker. It is for that reason that I have so carefully described and so profusely illustrated in the previous pages of this catalog the various types and sizes of engines which I build. I do not want to sell you "an" engine so much as to see you get "the" correct one in both style and size. I cannot afford to have a dissatisfied customer on my list if there is any possible way of avoiding it.

Better engines than the WITTE are not made, but still it is important that you select the correct one, and if you are at all in doubt, please do not hesitate to write me. Both I and my engineering force, as well as even the factory itself, are at your command, and it will be far safer and cheaper for you to have that information before you buy than to listen to some litt'e dealer, or sa'esman who has only his commission at heart.

I am not concerned in the profits that I might make on your sale. I want a WITTE booster, one who will be glad to see me some day when he calls at the office, and say, "Ed., I wish to thank you for having given me the engine and the service you did."

Of course I sell for either cash or on an easy payment plan, but I don't ask you to borrow money from me at 8%. I charge absolutely no interest.

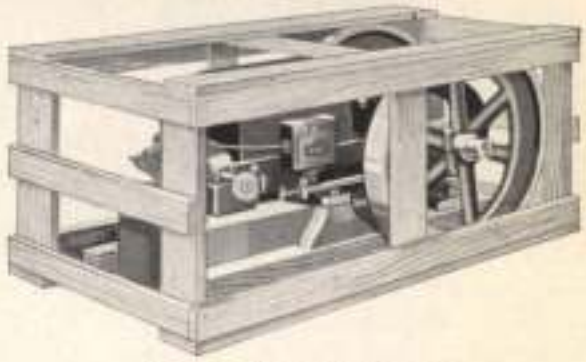
When I sell on the Easy Payment Plan, I send you my acquaintance blank, on one side of which I tell you who I am and how I am fixed, so that you will have no hesitancy in trusting me by sending me the order and part of the price. On the reverse side, however, I must ask you to treat me likewise, by telling me in confidence a few things concerning yourself and your **ability** to meet this deferred obligation.

I shall be very sorry to have you feel, however, that this information is asked for any other reason than as means of establishing a basis of sufficient **credit.** I sell all over the world, and I have got to know beforehand a little something about my customers before I can afford to accept every order offered me. Otherwise I guess you will admit that I wouldn't be in business very long.

I am perfectly willing to go further than even your own bank would, because I owe it to you as a duty to aid you in financing this deal if you buy my engine.

I get five deliveries per day from the postoffice and if the cash sale order is made out **correctly**, and if the easy payment plan acquaintance blank is properly filled out, so that I can accept the order, within three hours after that time I can promise shipment of any **standard** engine or other outfit cataloged by me. Please, therefore, be very careful to not only make out your cash order correctly and completely, but to fill out the acquaintance blank also, with the **necessary** information, if you buy on the Easy Payment Plan.

When sending orders, those from a line east of Indiana and north of Virginia should be addressed to the Witte Engine Works, Pittsburgh, Pa. Those received from the states of California, Oregon and Washington, should be sent to the Witte Engine Works, San Francisco, Calif. Orders from all the balance of the United States should be addressed to the Witte Engine Works at Kansas City, Mo.



Crated for Domestic Shipment

I hand you herewith the latest and lowest prices that I have been able to make for the quality of goods I deliver, based upon mass production and **direct sale to you.** On one side are prices, both for cash and on time, from which you can select the exact engine that you need. On the other side please insert your selection with its price, style, remittance and other information necessary. When you get it completed, please compare carefully to see that it is correct in every detail. If, however, you are in a hurry, you may order by wire and send in your order through your banker as directed, and mail me the order marked for "confirmation."

I thank you for having carefully read this catalog, and am going to thank you in advance also for your order, which I again assure you will receive the very best possible attention.

There's Only One Profit In a WITTE Engine

The Famous

WITTE

Lifetime Guarantee

If any part fails because of defect in workmanship, material or design, we will replace it without cost, upon receipt (transportation prepaid) of the defective part.

Ed H Witte

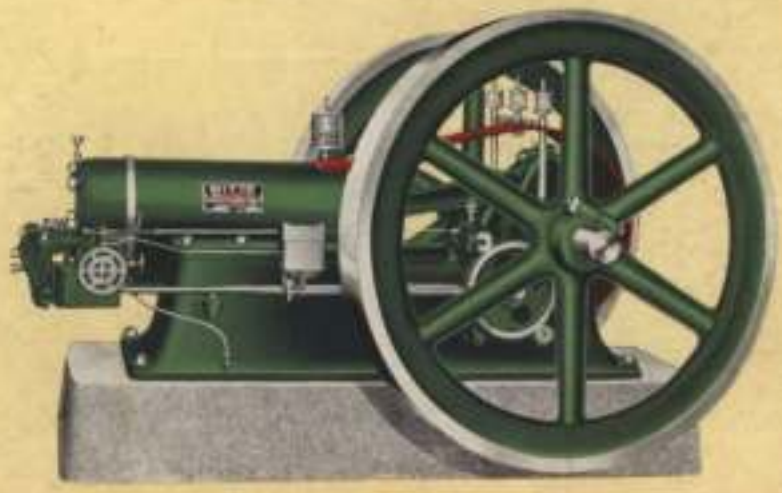
Printed in U. S. A.

Tree Saw

No. 101 Pumper

WITTE PRODUCTS

DEPENDABLE GUARANTEED



Heavy Duty Engine

Sold Direct From Factory to You

Log Saw

Buzz Saw Combination