

Catalogue No. 7.

1902.

# General Illustrated Catalogue



A. L. DYKE,

MANUFACTURER AND JOBBER

## AUTOMOBILE PARTS <sup>AND</sup> SUPPLIES

Office and Salesroom,

1402 Pine Street, - ST. LOUIS, U. S. A.



Registered Cable Address, "DYKE, ST. LOUIS," International Code.

Long Distance Telephone, Bell, Main 4212 M.

All previous quotations cancelled. Prices subject to change without notice. June 1, 1902.

# INTRODUCTORY.



**I**N Presenting this Catalogue to the Trade it is with the utmost confidence in the goods herein described, as they have all been thoroughly tested. The goods herein illustrated are beyond the experimental stage, and the purchaser can feel assured he is getting exactly what he pays for and not buying an article which has not been thoroughly tested by actual use and therefore cannot be depended upon.

We do not wish to make or sell poor, inferior apparatus with nothing to hold them up but advertising; what we do wish to do is to produce the best goods on the market at a reasonable price and establish a name among the Manufacturers and Dealers and users of Automobiles which will insure a legitimate and profitable business for years to come.

**WE ARE THE ORIGINATORS** of this line of business. The First concern in America, or possibly the world, was known as **The Automobile Supply Co.** This business was originated by **A. L. DYKE**, and they issued the First Catalogue on Automobile Supplies in America. This Company was organized and incorporated under the name of The St. Louis Automobile and Supply Co., who continued the manufacture of A. L. Dyke's machines, until they sold out, and Mr. Dyke started for himself.

From the valuable experience thus acquired, we are placed in a position to furnish all the latest and best Auto parts, and our testimonials will certainly show that our material is giving entire satisfaction.

## IMPORTANT.

This Catalogue has been carefully compiled by us for the benefit of every one using this class of goods.

We trust, therefore, that it will be carefully preserved for future reference, and that we may be favored frequently with orders.

All Prices subject to change within the market.

All Claims must be made within 10 days after receipt of Goods.

All Packages Merchandise ordered sent by mail, will, unless explicit directions to contrary are given, be subject to charge for registration. The frequency of losses of goods sent in open mail, makes this rule imperative.

State whether you wish material shipped by Freight or Express.

Customers returning goods will please mark their names plainly on the boxes or packages, and advise us by mail, giving exact memoranda of articles returned, that we may make proper credits.

All prices quoted are based on the expectation of receiving funds par in St. Louis.

The collection of checks on local banks involves delay and expense, which especially in the case of very small amounts, cause inconvenience and considerable loss. We trust therefore, that our friends will remit us either in cashier's checks on some one of the larger cities, Postal or Express Money Orders, or Currency by registered mail.

Parties sending Stamps, will confer a favor by remitting those of the denomination of 1 cent or 5 cents, when it is possible. But Postage Stamps make a very undesirable currency.

"C. O. D." orders should be accompanied by at least 25 per cent. of the estimated amount of invoice to guarantee us against loss in case shipment is for any reason refused.

### DISCOUNT TO THE TRADE.

### REFERENCES.

Special report from Dun's or Bradstreet's, or the Missouri Trust Co., where we do our Banking business.

**A. L. DYKE,**

1402 PINE STREET,

ST. LOUIS, MO., U.S.A.

# DYKE'S No. 0 AUTOMORETTE. HYDRO-CARBON.

This machine is designed for general runabout purposes. It will carry two with ease, and the power and ease of operation will surprise you.

We do not sell this Machine completed, as shown in illustration, but we sell all the parts finished ready for assembling, or the Castings and Working Drawings.



**Cooling**—Self-circulating or by means of small pump, as desired. **Running Gear**—Dyke's standard type, No. 0 Flexible Reachless Gear, with improved spring arrangement and radius rod. **Bearings**—Ball bearing front wheels and plain bronze rear axle bearings. **Rear Axle**—Solid from one end to the other, with improved compensating device. **Radius of Travel**—One tank of gasoline and one tank of water, 40 to 50 miles. Larger capacity of gasoline and water if desired. **Cost of Operation**— $\frac{1}{2}$  cent per mile. **Carburetter**—Dyke's Float Feed Carburetter. Positive in summer or winter. A proper mixture at all times, hence more power. **Combustion**—Complete. **Oder**—None. **Exhaust**—Almost noiseless. **Danger**—Absolutely none. **Tools**—Carried under front seat. **Spark Coil**—Dyke's Jump Spark Coil with Vibrator—operated on 6 volts and  $\frac{1}{2}$  amperes. **Speed**—Variable up to 18 or 20 miles per hour. **Grades**—Will climb any ordinary grades. **Starting**—By crank. **Stopping**—Powerful Hand Brake acting on rear differential. **Control**—Shifting igniter and lever "C" on Carburetter. **Alarm**—Dyke's "Boo-Goo" Chime, double tone song. **Wheels**—28 inch wire tangent spokes. **Tires**—Pneumatic, 28x2 inch, or larger, as desired. **Weight**—About 500 pounds. **Seats**—2 people. **Dimensions**—75 inches over all.

**EASE OF CONTROL**—The Control is perfectly simple. You can start immediately at any speed the road will permit (up to 18 miles per hour) by merely pushing a lever forward. The guiding lever practically controls the speed and direction, and is handled as easily as a bicycle. One turn of the starting crank starts the engine. The vehicle can be stopped in its own length by pressing on a foot-brake lever.

**SIMPLICITY**—For our light machine we have patterned to some extent after the system adopted by the people of France, the home of the Automobile. The trend of all manufacturers of automobiles is toward simplicity. We have kept this one point in view above all others. In our experiments we have discarded all methods not easily mastered, employing all our skill toward perfecting an automobile which can be handled with little trouble.

## THE DYKE No. 0 or 3½-H.P. ENGINE USED ON AUTOMORETTE No. 0.

This Engine is rated from 4 to 5 Horse-Power by others.

Water Cooled Throughout.

**No. 0 Cylinder Head and Valves all in One Casting.**



The above illustration shows Water-cooled 3½-Horse-Power Gasoline Engine.

The Cylinder, Cylinder Head and Valves are all in one casting.

We make the shaft any length when not used with No. 0 Maching.

### Aluminoid Crank Case.

Two Fly Wheels run inside of Crank Case.  
Self-oiling.

Jump Spark Ignition.

Shifting Igniter.

Speed from 200 to 1800 revolutions per minute.

Stroke, 4 inches. Bore, 4 inches. Crank Case, 12 inches in diameter. Width, 5 inches. Height, 22 inches. Weight, 110 pounds. Engine Shaft, 1½ inches in diameter. We leave shaft projection of 8 inches, or longer if desired.

The following Accessories are necessary to operate the Engine: **Carburetter, Spark Coil, Igniter Plug, Batteries and a Muffler.**

No packing is used on this Engine, no facing and fitting of Head and Cylinder.

PRICE OF ENGINE, COMPLETE, WITH ALL ACCESSORIES \$160.00 *list*

PRICE OF ENGINE, WITHOUT ACCESSORIES 140.00 *list*

## THE ADVANTAGES OF GASOLINE AS A MOTIVE POWER.

- First—It is absolutely safe.
- Second—Its cost of operation is lower.
- Third—Its range of operation is greater.
- Fourth—It requires less attention.
- Fifth—It is more easily understood.
- Sixth—It is easier to operate.
- Seventh—It requires no technical knowledge.
- Eighth—The fuel is obtainable everywhere.
- Ninth—It can be repaired at the roadside.
- Tenth—It can be sold at a popular price.

## DESCRIPTIVE POINTS.

**Power**—Gasoline. **Engine**—Single cylinder, four cycle, developing three and one-half horse-power (others rate more for same size engine). **Ignition**—Jump Spark. **Drive**—To transmission, which gives a high and low gear by means of friction rings, then to sprocket or rear axle. **Running Gear**—Dyke's standard type, No. 0 Flexible Reachless Gear, with improved spring arrangement and radius rod. **Bearings**—Ball bearing front wheels and plain bronze rear axle bearings. **Rear Axle**—Solid from one end to the other, with improved compensating device. **Radius of Travel**—One tank of gasoline and one tank of water if desired. **Cost of Operation**— $\frac{1}{2}$  cent per mile. **Carburetter**—Dyke's Float Feed Carburetter. Positive in summer or winter. A proper mixture at all times, hence more power. **Combustion**—Complete. **Oder**—None. **Exhaust**—Almost noiseless. **Danger**—Absolutely none. **Tools**—Carried under front seat. **Spark Coil**—Dyke's Jump Spark Coil with Vibrator—operated on 6 volts and  $\frac{1}{2}$  amperes. **Speed**—Variable up to 18 or 20 miles per hour. **Grades**—Will climb any ordinary grades. **Starting**—By crank. **Stopping**—Powerful Hand Brake acting on rear differential. **Control**—Shifting igniter and lever "C" on Carburetter. **Alarm**—Dyke's "Boo-Goo" Chime, double tone song. **Wheels**—28 inch wire tangent spokes. **Tires**—Pneumatic, 28x2 inch, or larger, as desired. **Weight**—About 500 pounds. **Seats**—2 people. **Dimensions**—75 inches over all.



DYKE'S  
No. 0  
FLEXIBLE  
REACHLESS  
RUNNING  
GEAR

Please take notice of the improved spring arrangement, doing away entirely with reaches; also note arrangement of radius rod, which keeps the chain at the proper tension at all times.

No binding of bearings on this gear. Front wheels independent of the rear wheels. When the springs go down the chain stays the same tension. The radius rod pushes the rear axle back.

Did you know that if you run your chain at an angle to the rear sprocket that it would jump the sprocket every time the springs went down—unless you was provided with a radius rod? Look this matter up. (See Running Gear pages.)

## SPECIFICATIONS.

Track—41 in., or 4 ft. 8 in. Wheel Base—60 in. to 72 in.
Wheels—28 inches, wire. Tires—28x2 inches.
Width between Angle Iron Frame on Top—22 inches.
Length of Angle Iron Frame—66 inches.
Front Axle—1½ inches. Rear Axle—1 inch.
Differential—Inclined, with Band Brake cast on same.
Sprocket—30 teeth attached to differential.
Spring—"Rubber Head" type, new arrangement.
Steering—By lever. Wheel or side steering at additional cost.
PRICE OF NO. 0 GEAR, COMPLETE, LESS TIRES \$120.00 <i>list</i>
SET 28x2 INCH PNEUMATIC TIRES 35.00 <i>list</i>

### Solar Miners' Lamp



As shown in the cut the generator strap to the back and a small rubber cable leads to the flame chamber and reflector, which is very light and fastens to the cap. The generator is constructed so it always keeps cool, and lamp burns no hotter, giving a brilliant white light, making it extremely suitable for mining work.

Price \$3.50 each

### Solar Launch Headlight



Is 10½ inches high, similar in construction to the standard carriage lamp, with 3½-inch front lens, white, and 3-inch red and green side lights, projecting so as to be seen front or side as per U. S. marine laws, finished only in all nickel, and specially adapted for use on inland lakes or rivers, for open launches, and gives an especially strong, white front light. The gas generator is contained in and is a part of this lamp. Both Launch lights are fully guaranteed.

Price \$7.50 each

### Solar Launch Lamp



Is 12 inches high, fitted with 3-inch white bull's eye lens, and 3x4½-inch red and green side lights, complying with U. S. marine laws. Burns ten hours. Made triangular shaped, entirely of brass and highly finished. Suitable for all styles of launches and especially adapted for use on inland lakes and rivers. The gas generator is not a part of the lamp, but can be removed for recharging.

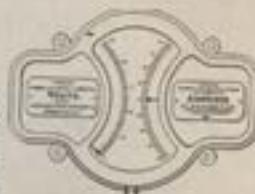
Price \$12.00 each

**THE  
GAS  
LANTERN.**

The only Safe  
Lantern. No  
oil, no smoke.  
Gives twice the  
light of an oil  
lamp, and is posi-  
tively odorless.

Efficient opera-  
tion; no jarring  
or blowing out.  
Polished nickel.

PRICE, \$1.50 NET



### Weston Volt Ammeters.

#### FOR ELECTRIC AUTOS.

10 Amp., 75 Volts	\$35.00
25 " 75 "	35.00
50 " 75 "	35.00
100 " 75 "	35.00

### CARBIDE.

Calcium Carbide put up  
in cans.

2-pound cans, each	\$0.30
2-pound cans, per case	
24 cans	7.68
5-pound cans, each	.80
5-pound cans, per case	
12 cans	8.88
10-pound cans, each	1.40
100-pound cans, not crushed	11.00

40 per cent discount.



Shows Dyke's Hand Electric Light. Can be used with any style vehicle; throws light 100 feet; uses dry cells. Weighs but 18 ounces and is 6¾x2x1½ inches in size. Can be carried in pocket. Convenient in time of break-down or accident at night, etc. each \$4.00



### Dyke's "Water Light."

A Device which should be used on all Steam Automobiles when driven after dark.

Includes three cells in box all wired, which may be placed anywhere in the vehicle Lamp, push button which can be easily sunk in the side of seat, ample wires for wiring, and can be fitted to any vehicle by anyone. Handy for examining gasoline motors as well as steam engines.

Price ————— \$5.00



No. 9, Rigid Seat Bracket.  
For Carriages and automobiles. (Patented) Either side of front seat. The seat is held with screws under the cushion without disturbing the paint or varnish. If the side of seat is solid wood it passes around at the front to the proper position. If an open rail it sets between the split dies directly to the proper position. Lamp removed and bracket remains unnoticed.

Price ————— \$1.00



THE FAMOUS SALISBURY-BELSTAFF  
ACETYLENE LAMP.

The style used on foreign ma-  
chines. Extra large and power-  
ful. Enables the smallest  
Automobile to travel safely at  
the highest possible speed  
without the slightest danger of  
overheating, especially when  
exposed either by the heat of  
the elements or the vibration  
and jar of the roughest  
roads. Price ————— each \$15.00

### KILFYRE.

Should be carried by every  
owner of a steam Auto. It is  
a powder put up in a neat tin  
case 22 inches long, 2 inches  
in diameter and weighs 3 lbs.  
It is the only extinguisher  
that will put out gasoline, oil,  
grease or electrical fires.  
Good thing to keep in your  
barn or house.

Price, per tube ————— \$3.00  
May save its cost a hundred  
times.

### SMALL INCANDESCENT LAMP.

Each  
For Dyke's Hand-lamp, \$0.00  
For Dyke's Water-light, .00

# IMPORTED FRENCH AUTOMOBILE HORNS.



No. 20. French Auto. Horn.

The French Horns are the finest in the world, made from the best material. This is especially the case with the "reeds." The horns give a clear and distinct alarm and do not squeak. No. 20 is most popular style and is furnished in six sizes, as follows:

### LIST PRICES.

Number.	Total Length.	Diameter of Bell.	List Price Each.
20	15 inches	6 inches	\$12.00
20 b	12 "	5 1/2 "	10.75
20 a	12 "	5 "	9.75
20 c	11 "	4 1/2 "	8.75
20 d	11 "	4 "	7.75
20 e	9 "	3 1/2 "	5.75
20 f	9 "	3 "	5.00

This is the regular horn fitted with six feet of flexible metal tubing, nickel plated, highly polished to correspond with high-grade finish on horns. This is something entirely new. The body of tone attachment is easily placed on the horn or the front of automobile so that the bell is thrown ahead, just where it is wanted. This attachment will be appreciated by the chauffeurs in general, as placing the horn in front will relieve them from the noise so close to their ears, which has been found quite objectionable. The flexible metal tubing used will not char, kink or crush. It is practically indestructible, no canes or rubber being used.

This attachment to fit any of the above horns. \$4.00 extra.  
This attachment to fit horns now in use all.

No. 26. French Adjustable Horn.  
Length 6 ft. Diam. of Bell 6 in.

The latest French creation is an adjustable horn. The bell is detachable and adjustable to any angle and is connected to the body of horn by a small screw at the top. One also saves wire not for clamping band around bell after being adjusted to any angle desired. This is, we believe, the largest horn ever shown in this country, and attracted considerable attention at the late Automobile Show, on account of its size, adjustable feature, loud and clear tone. Retail price, \$12.00 each. Fitted with Flexible Tubing, \$3.00 extra.

### American Made Auto-horns.



Diameter of horn bell 4 inches. Double diminished size elbows.

List Price, \$4.00 each.



This small straight horn shown is seven inches long, gives a clear, sharp alarm, and is intended especially for motor cycles, tricycles, etc.

List Price, \$1.50 each.



No. 20. French Auto. Horn, with Flexible Metallic Tubing attached.

This attachment to fit any of the above horns. \$4.00 extra.  
This attachment to fit horns now in use all.

### FOOT HORN.

PUMP and horn may be fastened underneath body of vehicle, and has sleeves which fit over pumpage rod when allowing the foot board to be readily removed and without disconnecting any part of the apparatus. This foot horn overcomes

the necessity of taking the hand off the steering gear to blow horn. The horns used are imported and made especially for this purpose. Pump can be purchased separately, and can be readily attached to the horn by rubber tubing. The whole apparatus is very light, weighing but one pound, and all parts are of bronze and rust proof. It is finished in black enamel (baked).



PATENTED

Type A.

Sounding New-York's "Be-Be" China Song.  
Two Distinct Different Tones.  
Price, Type A, 4-inch \$9.00  
" " 3-inch \$7.75  
" " 6-inch \$10.00

### "ALL ABOUT

#### The Automobile."

600 Pages with  
nearly 500 Illustrations—A Fine Publication.

\$5.00.



PUMP—Pump  
Pole for  
Steering Gear  
Rubber  
Tubing  
Wrench  
Screw  
Nuts  
Allen  
Key  
Screws  
Nuts

Price, \$12.00 complete.  
Price, \$6.00 pump only



### AUTOMOBILE FENDERS.

Our fenders are made of the very best of patent leather. They are handsomely stitched and not only practical, but add to the most pleasing lines of the vehicle, but also prevents the hitting of stones, dirt, mud, snow, etc., when entering the vehicle, still further, they add to the beauty and general appearance of any vehicle. Model A is especially adapted for "Locomobile," "Mobile," or similar style vehicles, and can be fitted in a very few minutes by fastening it to the body of the vehicle, as shown in our illustration, using the screws that come with the fender.

Type B.  
Is designed for Motor-cycles,  
Tricycles, etc. Price \$6.00

List price, per set of four \$15.00

### COLLAPSIBLE RUBBER BUCKET.

Folds up out of the way in small compact shape.

Fitted with gravel screen and extruding spout.

Price \$1.60

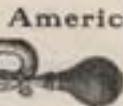


CANVAS AUTO. BUCKETS, without spout \$6.00  
" " with spout \$1.00

No. 26. French Adjustable Horn.  
Length 6 ft. Diam. of Bell 6 in.

No. 1. Diam. of horn bell 4 inches. Double diminished size elbows.

List Price, \$4.00 each.



Diameter of horn bell 4 inches. Double diminished size elbows.

List Price, \$4.00 each.



This small straight horn shown is seven inches long, gives a clear, sharp alarm, and is intended especially for motor cycles, tricycles, etc.

List Price, \$1.50 each.

### WILLOW "CARRY- ALL" BASKETS.



No. 1, top length 23 1/2 in., top width 22 in., side height 14 in., Price, \$1.50  
No. 2, top length 22 in., top width 20 in., side height 13 in., Price, \$1.00  
No. 3, top length 20 in., top width 19 in., side height 12 1/2 in., Price, \$1.00  
No. 4, top length 18 in., top width 17 1/2 in., side height 12 in., Price, \$1.00

ROUND CARRIAGE BASKETS.

No. 1—8X8 in.	\$4.50
No. 2—10X10 in.	2.47
No. 3—12X12 in.	2.00
No. 4—13X14 in.	2.22

These baskets are made of fine willow. \$1.50 extra.

### TOPS AND CANOPIES.



Type for new Automobile (Early Prod.)



These tops are designed to fit all automobiles, but especially for those having wide bodies. They are made of fine, strong, pliable material, and are easily attached to the body of the car by a few simple screws. The other varieties have the ribbons attached to the top, so as to allow the top to be easily taken off and put on again. The tops are made of fine, strong, pliable material, and are easily attached to the body of the car by a few simple screws. The other varieties have the ribbons attached to the top, so as to allow the top to be easily taken off and put on again.

The tops are designed to fit all automobiles, but especially for those having wide bodies. They are made of fine, strong, pliable material, and are easily attached to the body of the car by a few simple screws. The other varieties have the ribbons attached to the top, so as to allow the top to be easily taken off and put on again.



Registers distance traveled. Rings small bell each mile. Keeps record for last miles and repeats.

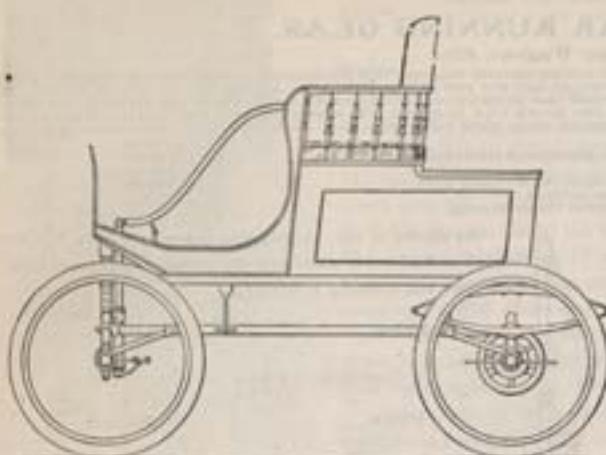
Price, with Bell Attachment \$5.00

### WEEDER ODOMETER.

Price, complete, without attachment \$3.00  
With attachment \$3.50

Buy in ordering give out-to-out diameter of wheel which it will be operated from.

# No. 1 S STEAM OUTFIT. (TWO PASSENGER.)



## LIST OF MATERIAL WHICH WE FURNISH WITH OUTFIT NO. 1 S.

Running Gear, with center steering fittings No. 1 S, page 40, enameled and nickelized, with double acting hand brake.  
Engine No. 18, page 44.  
Boiler 14x14, seamless steam shell and tubes with smoke dome attached.  
Burner 16 in., cast iron.  
Generator and Regulator, attached.  
Gauge, Steam, 300 lbs., nickelized.  
Gauge, Air, 300 lbs., nickelized.  
Auxiliary Hand Water Pump.  
Water Column, Safety Pin Valve Pattern.  
Pop Safety Valve.  
Throttle Valve and flexible connections. Pin Valves.  
Throttle and Reverse Levers, with bypass.  
Foot Brake Lever. Blow Off Valve.  
Pair of Rubber Pad Steps.  
No. 18. Body in the white and patent dash.  
20 ft. of ½-inch, I. P. Copper Connecting Pipe.  
10 ft. ¾-inch Baldwin Block Chain.  
Air Tank. Gasoline Tank. Supply Water Tank.  
Muffler Tank, copper.  
Set 28x2½-in. A grade pneumatic tires.  
One 3-in. double tone Gong. Pair of Carriage Lamps.  
1 Mirror. 1 Cylinder Oil Cup.

This Outfit includes everything necessary, with drawing, to build a standard style of Steam Automobile. Any ordinary mechanic can purchase these parts and build a successful Machine.

PRICE, complete as described above	\$550
Set of Full Working Drawings	Net 5
Side Steering Fittings, extra	5

We will supply Concord pattern wood wheels with 1½ solid rubber guaranteed tires without extra charge. For prices of either wire or wood wheels with American roller bearings, write us.

We do not furnish the complete vehicle, only the parts necessary to construct the above model.

Should you want any change in this specification, write us, and we will give you special figures.

# No. 2 S STEAM OUTFIT. (FOUR PASSENGER OR DELIVERY.)

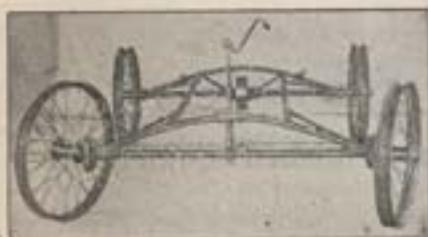


Same general outfit as described under No. 1, but surrey body and No. 2 S Gear for four passengers. Engine, 16x16 boiler, ¾ or ½-inch Baldwin Block Chain, 3-inch pneumatic tires, and fittings heavier in proportion to carry the extra weight.

PRICE, complete outfit	\$600
Price for full set of Working Drawings	Net 5

## No. 1 S RUNNING GEAR.

### SPECIFICATIONS



Shelby seamless steel tubing, front and rear. Top tubes and reaches 1½ in., lower tubes, front and rear, 1½ in., 16 and 14 in. gauge respectively.

Knuckles dropped forged screwed into threaded yokes with lock nut below. Differential Brown-Lipe Spur pattern, model 6, any size sprocket to 36 teeth. Bearings dust proof ½ or ¾ in. balls in front, ¾ in. balls in the rear and keyed solid on rear axle, or with plain bearings if preferred.

Wheels 28x2½ in. with large barre hubs 4½ in. center to center of flanges, nickelized, and forty ½ nickelized Envelope spokes.

Rims. Electrically welded and punched for 5 tire lugs.

Spring blocks, two rear and one front, 30 in. between centers.

Reaches 22 in. between centers.

Weight 150 lbs. including wheels.

Capacity 1,000 to 1,200 lbs.

Track 4 ft. 4 or 4 ft. 8.

Wheel base, choice 54 in. to 66 in.

Steering fittings, center pattern keyed to prevent possible slipping, and each connection fastened by ½ in bolt nut and spring cotter.

NOTE.—Each telescoped joint at end of each rod is provided with an oiling device.

Price, nickelized only	\$110.00	Price, side steering fittings, extra net	\$ 5.00
" enameled and striping	9.00	" Bend Brak, single acting	9.00
" 1½ in springs, oil tempered, per set of three	7.00	" " " double acting	12.00
" enameled springs and fittings to gear with spring clips	3.00	" with Sarven A Grade, wood wheels, painted to match gear and 1½ in. solid rubber tires put on	35.00

We can supply 1½ or 1¾ cushion tires on wire wheels if preferred, or we can supply solid rubber with steel channel rims on wire wheels.

Differential will be placed on one side if desired, 5 in. either side of center.

## No. 2 S TUBULAR RUNNING GEAR.

For No. 2 S Outfit. Four Passengers.

Same general specifications as Gear No. 1 S, except heavier throughout; Brown-Lips Model one Differential; Rims, 23x3 in.; four Spring Blocks; Thread, 1 ft. 8 in. Price, advance over Gear No. 1 S. \$12.00. We will supply American Roller bearing in wood wheels on above gear. Prices on application. Differential will be placed on one side up to five inches from center if desired.

## No. 3 S TUBULAR RUNNING GEAR.

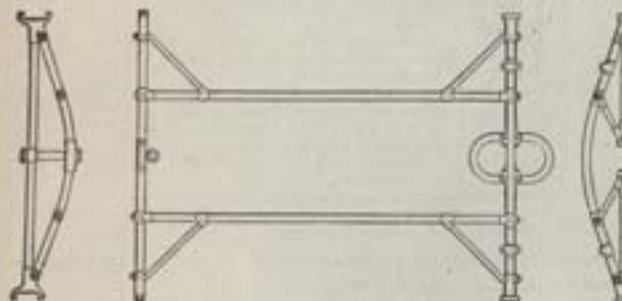
For Delivery Wagons, Etc.

This Running Gear is built especially for heavy weight surreys, or medium delivery wagons. It is constructed for heavy gauge manganese tubing. Has the flexible features of swivel rods, 6 in. balls in front bars and differential side. The rear axle made of 1/4 in. special steel, standard size 17. 9 in. by 15 in. wheel base, but this will be changed without extra cost to 16 in., or we can have it scratch out delivery wagon body. The spokes are 6x10 in. Excellence Needle Co., guaranteed to stand up under a weight of 2,000 lbs. Model one Brown Lips spur gear with same capacity is used and the forged fittings are of uniform strength. Nickel plate is used only on the steering fittings, all other parts being enamelled. Choice of side or center steering fittings.

<b>PRICES.</b>	With tires for 4-in. pneumatic tires	\$12.00
"	With Harvey Wood Wheels and 16-in. guaranteed solid rubber tires	18.00
"	" Roller Bearings instead of Ball	18.00
"	" Harvey Wood Wheels and 16 in. solid rubber tires	21.00

Differential will be placed on one side or center as ordered.

Plain bearings will be substituted for ball bearings at the same price.



As shown in cut, pinned and braced ready to file and finish and all parts accurately machined and reamed ready for cups and steering knuckles.

Price \$40.00.

1 Rear Axle, 2 Pieces, steel in rough.

Price \$3.50.

Finished Rear Axle, with thread and key way cut.

Price \$0.00.

## FRAME FITTINGS.

Open Hearth Genuine Steel Castings to Construct Gear No. 28.

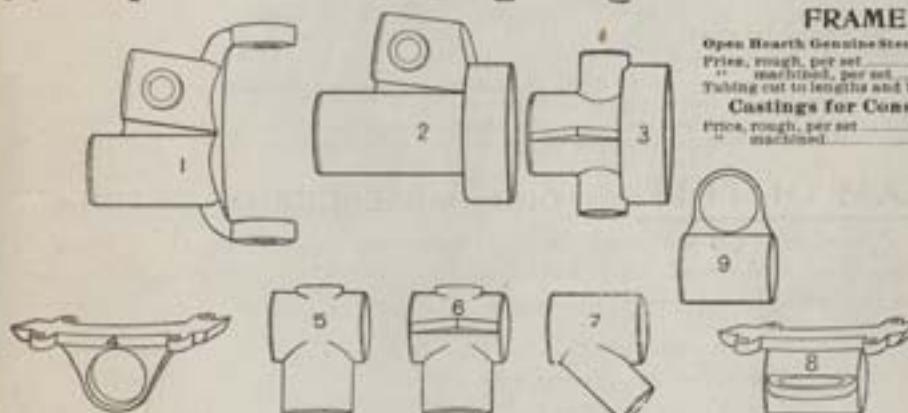
Price, rough, per set	\$ 0.00
" machined, per set	10.00

Tubing cut to lengths and bent

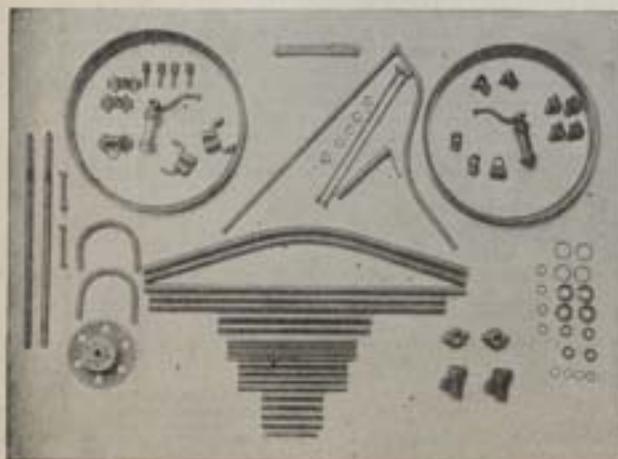
0.00	0.00
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Castings for Constructing No. 28 Gear.

Price, rough, per set	\$14.00
" machined	32.00



2-Axle No. 1-2-3-4-5-6.— 4-Axle 7.— 1-Diff. 8-9-10



## No. 1S

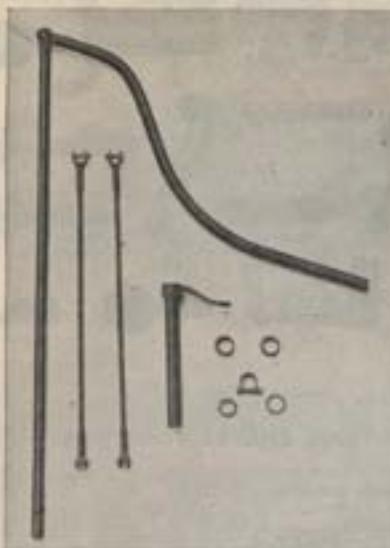
### Semi Finished Combination.

Cut shows our special set of Frame Fittings complete, ready for brazing; includes Ball Cups, Cones, Lock Nuts, Balls, Differential Steering Device, Back Axle, Steering Knuckles, and sufficient Tubing. This set is complete in every respect, and contains everything to construct a complete gear. Parts are accurately machined and ready to go together.

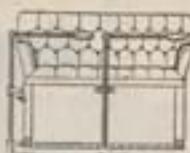
Price, all parts finished in the black \$85.00

" necessary parts nickelized and finished \$0.00

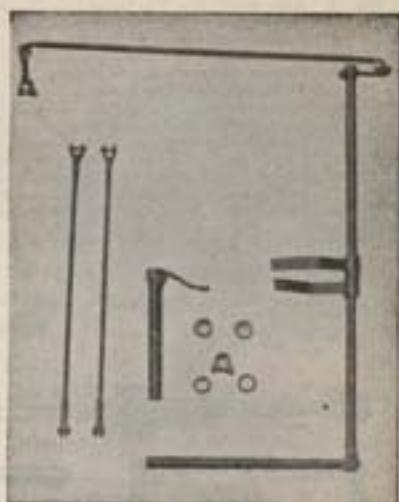
## STEERING FITTINGS—Including Head Set, Nickeled.



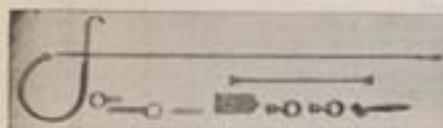
CENTER PATTERN.

Price, complete Set, center in black \$1.00  
" " complete Set, nickelized \$1.00

Above shows two methods of using the side steering device.



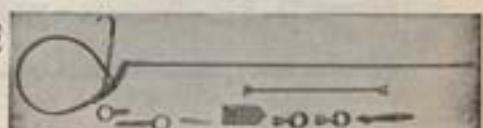
SIDE PATTERN.

Price, complete Set, side in black \$12.00  
" " complete Set, side nickelized \$15.00

SINGLE ACTION.

Price, as shown

## BAND BRAKE FITTINGS



DOUBLE ACTION.

per set, \$14.00

per set, 80.00

Price, as shown



## Automobile Brakes and Breaks

The requirements of an Automobile Brake:

- One that will stop the wheels of a vehicle instantly when necessary, or decrease the speed any amount desired.
- One that can be operated effectively with little or no exertion.
- One that will act equally effective when the carriage is moving in either direction.
- One that does not bind nor cause any friction while released.
- One that will hold a carriage stationary or stop it when moving backward down the steepest hill.
- One that does not squeak when applied, nor rattle while released.

A TEST.—Will your brake hold your automobile still when full power is exerted in either direction? If not, you will do well to discard it and get out an AUTOBRAKE. It is nearly automatic—you furnish only enough power to tighten the band—it does its own stopping. Simple in construction, compact and looks well on carriage. Made of the best materials known, proven amply enough for wearing qualities. Easily applied to your carriage and does not mar it in any way. Guaranteed.

Finished in Black Enamel \$5.00      Finished in Full Nickel Plate \$12.00  
Finished in Black Enamel \$10.00      Finished in Full Nickel Plate \$15.00

per set, \$14.00

## “THE DAYTON” BRAKE.

## PATENT APPLIED FOR.



Grips uniformly throughout its entire circumference and holds equally well with the carriage moving in either direction.

Very simple in construction; neat in appearance; easily applied; free from toggles to get out of order and make a rattling noise; quick, efficient and reliable in operation. Operated by a single Cam Lever, which is the simplest, quickest and most powerful mechanical device for such a purpose.

EIGHT INCH \$10.00 ELEVEN INCH \$12.00 TWELVE INCH \$15.00

Finished in Black Enamel \$5.00      Finished in Full Nickel Plate \$12.00

Finished in Black Enamel \$10.00      Finished in Full Nickel Plate \$15.00

## FORGED FRAME FITTINGS

## PRICE OF PARTS—ROUGH.

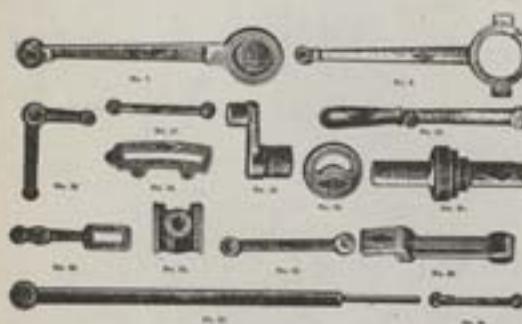
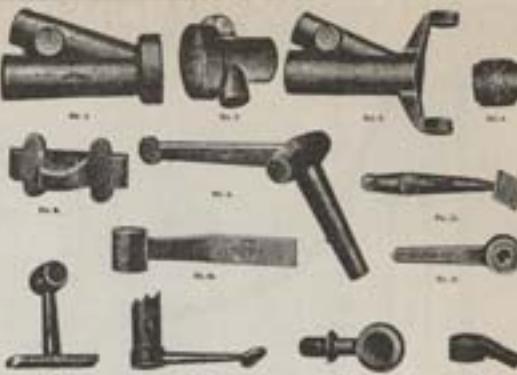
No. 1.	Rear wheel clip, 2 to frame.....	per pair, \$1.80
" 2.	Driving gear clip, 2 to frame.....	1.30
" 3.	Front wheel clip, 2 to frame.....	2.50
" 4.	Reach clip, 4 to frame.....	.80
" 5.	Bottom spring clip, 4 to frame.....	2.80
" 6.	Front hub axle, 2 to frame.....	2.50
" 11.	Brake foot lever, 1 to frame.....	.25
" 12.	Short brake lever, 1 to frame.....	.25
" 21.	Lower brake steering rod, 1 to frame.....	.65
" 34.	Upper bracket for steering rod, 1 to frame.....	.65
" 25.	Steering head stem, 1 to frame.....	.85
" 37.	Step brace, 2 to frame.....	.45
" 39.	Upper reach brace clip, 4 to frame—per set, 1.30	

When ordering parts, specify number as given above.

If machined, double list prices.

For the complete set, 27 pieces, machined, ready for use.

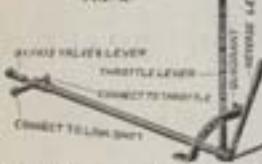
Price ..... \$25.00



## STEAM ENGINE FORGINGS.

	To each Engine	Each.
7. Connecting Rod.....	2	\$0.50
8. Eccentric Rod.....	2	.50
16. Ball Crank.....	1	.30
17. Link Connecting Rod.....	2	.30
18. Reverse Link.....	2	.30
19. Engine Crank.....	2	.30
20. Eccentric.....	4	.30
21. Engine Crank Shaft.....	1	.00
22. Pump Lever.....	1	.20
23. Cross Head.....	2	.00
24. Pump Connecting Rod.....	1	.30
25. Reversing Lever.....	1	.40
26. Throttle.....	1	.35
27. Hand Pump Connecting Rod.....	1	.30
30. Engine Support.....	2	.60

FIG. K:



By-pass Throttle and Reverse Lever Set, complete like Figure K.

Dressed and Filed ..... \$9.00  
Plated and Nickelated ..... \$12.00

THE NEW KELLY GENERATOR.  
ENTIRELY NEW IN CONSTRUCTION.

No smoke, no fuming or flaring in first lighting. Not necessary to use drip cup. Strong winds have no effect. Clean and quick in operation. All outside connections, aluminum case over Generator. Gas orifice outside fully protected from wind. Strong, simple and powerful, with valve to control fire at seat.

Advancement and competition in the construction of Steam Carriages demand all parts for 1912 to be durable and effective, and any noisy devices or experiments presented now cannot be accepted. Experience has put aside nearly all the first constructions in the Steam Motors, and parts must now be made for endurance and have unquestionable merit. All these we present in our new Generator for the first lighting and keeping up the sub-frame, always in readiness to turn on the main burner. Our new Generator is small and very neat in appearance, but has a business-like look that only needs a trial to fully convince that it possesses all requirements to the highest degree. As we were the first to produce and present an independent Generator with the valves at seat, together with our experience and constant experiments, fully warrants us in claim in this new Generator a simple, powerful and durable attachment that will be welcome both to the maker and user of Steam Vehicles. (Our Generator is fully covered by patents and will be protected.) List price, as shown in cut.



FIG. E. "A" SIZE  
\$85.00

(c) 2014 The Virtual Steam Car Museum, Inc.

GASOLINE  
POCKET  
TORCH.

BILLET NICKEL,  
PLATED  
RESERVOIR.  
1 1/2 in. high.  
1 1/2 in. diameter.  
Price ..... \$1.00



No. 46.



No. 47.

No. 46. Billet Checks  
Vertical, 72s



No. 47. Billet Checks  
Horizontal, 72s

No. 48.  
CYLINDER LUBRICATOR CUP,  
1/4 inch ..... \$1.40No. 49.  
WATER GLASSES.  
6 inch ..... 20c  
12 inch ..... 35c

Fig. E.—Automatic self-closing Water Gauge, particularly adapted for Automobiles. Complete with glass and nozzle, all highly polished in nickel. \$3.00  
Drain Cock, extra ..... 20c

# NEW TYPE DAYTON ENGINES, BURNERS, REGULATORS, GENERATORS, ETC.

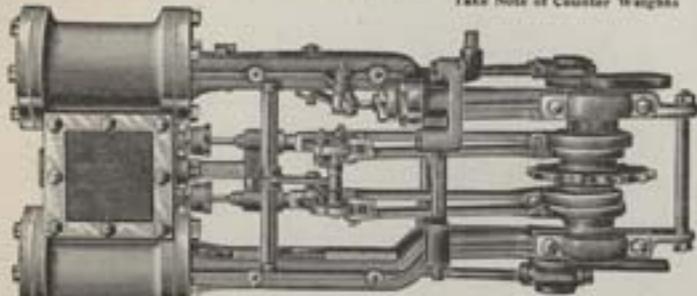
## WE CARRY A FULL LINE IN STOCK.

"THE DAYTON" AUTOMOBILE ENGINE—4 to 16 H. P.

Pilot Light Burns Constantly until Extinguished by the Operator.



Take Note of Counter Weights



"The Dayton" Engine—Front View.

**DESCRIPTION OF 4 H. P.—**This engine is designed to give the most power possible for the steam generated. Has plain side valves, which are the very "heart" of a Steam Engine, designed to cut off at the proper place and use the steam expansively. The steam cannot blow out through the valves, as some do. Regular locomotive style of link and valve mechanism simple and reliable. See next page also.

We have complete this engine with Balanced Cranks and Bronze Bearing.

Frame is rugged, having solid adjustable axles for Cross Head; Crank Axis, one piece of steel; bronze Cross Head; Main Connecting Rods, steel; all Bearings, Gun Metal, removable and adjustable. All bolts provided with lock nuts and copper pins. Sprocket wheel, 13 teeth for standard 3/8 inch chain, 1 inch pitch. (Can change to suit.)

		List Price
No. 4 Engine, 4 to 6 H. P., 16 in. bore, 8½ in. stroke, 22 lb. weight, 20½ in. wide, 8 in. deep, 12 in.		\$100
" " " " " "	" "	120
No. 6 " " " " " "	" "	150
" " " " " "	" "	180
No. 12 " " " " " "	" "	250
" " " " " "	" "	300

Above prices do not include Pump, Jacket or Dust Proof Case, which will be furnished

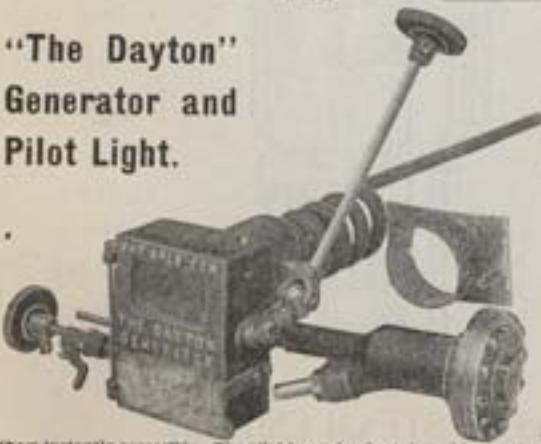
at the following prices, extra:

Force Pump, driven from Cross Head for Nos. 4 and 6 Engines, extra	\$ 1.00
" and 12 "	1.50

Asbestos Jacket for cylinders, extra

Dust Proof Metal Casting, fits No. 4 and 6 Engines, extra	\$ 1.00
" and 12 "	2.00

## "The Dayton" Generator and Pilot Light.



them instantly accessible. The pilot house is a box shaped brass casting, which will not rust or corrode, and is provided with a hinged door, having a large glass covered peephole, through which the pilot light can be observed.

The pilot house, with its contents, is secured to the rim connecting the boiler and burner by means of a segment and sleeve shown at "A". This segment is made of proper curve to fit true rim to which it is fastened, and the cylinder "B" which encloses the generating or heating coil, and the initial burner or pilot light, passes through the sleeve "A", thus making a close telescopic adjustable fit. This sleeve connection permits the pilot and its house contents to be inserted in or out, and also to be rotated as may be necessary to meet the requirements of each particular case.

This pilot house with its contents, will be sold separately if desired, and can be attached to any other make of burner, in which case those adjustable features will be appreciated.

Pilot House Generator and Gasoline Regulator 14 inch, each \$10; 16 inch \$12; 18 inch \$15; 20 inch \$18. If Gasoline Regulator is not wanted, deduct \$4.00 from price.



DAYTON COMPLETE BURNER, GENERATOR, PILOT LIGHT AND REGULATOR.

### PRICE COMPLETE

14 in. Burner with Generator and Regulator complete	\$40
20 in. " " " " " "	50
25 in. " " " " " "	60
30 in. " " " " " "	70

14 in. size with 11 Standard Locomotive.



"THE DAYTON" BURNER



14 in.

### "THE DAYTON" BURNER. (Patent applied for.)

Burner consists of a one-piece casting that cannot warp, or break or be flooded, has passages of narrow circular openings which will not clog and which provide solid brass flanges, thus securing maximum capacity. This burner can be quickly and thoroughly cleaned and is perfectly interchangeable.

The rim for attaching burner to boiler is made of cast-iron, top and bottom are bored off and provided with packing grooves filled with asbestos packing, thus effectively excluding the air. The rim is fastened permanently to the boiler by screws and the burner is fastened to the rim by wing nuts, so it can be quickly detached for cleaning when necessary.

The pilot house contains the generator and pilot light which are instantly accessible and thoroughly protected. Pilot light burns all the time; main fire controlled by one fire from driver's seat. Automatic Gasoline Regulator automatically regulates flow of gasoline so as to maintain regular pressure of steam. Everything necessary for safe, quick, clean and effective service.

Cast Iron Burner Base only 14 inch	each \$23.00
" " " " " 16 inch	20.00
" " " " " 18 inch	25.00
" " " " " 20 inch	30.00

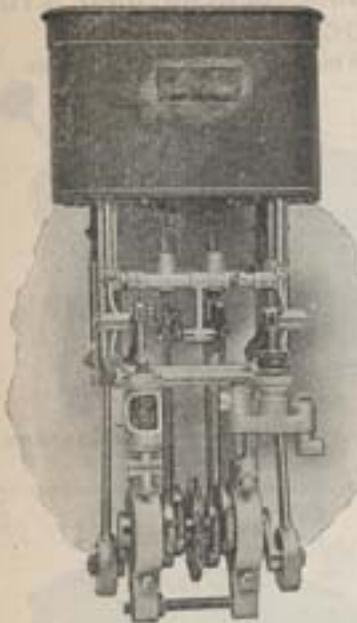
The Generator and Pilot Light placed within the pilot house, when thoroughly protects them from wind and weather, and at the same time renders them instantly accessible. The pilot house is a box shaped brass casting, which will not rust or corrode, and is provided with a hinged door, having a large glass covered peephole, through which the pilot light can be observed.

The pilot house, with its contents, is secured to the rim connecting the boiler and burner by means of a segment and sleeve shown at "A". This segment is made of proper curve to fit true rim to which it is fastened, and the cylinder "B" which encloses the generating or heating coil, and the initial burner or pilot light, passes through the sleeve "A", thus making a close telescopic adjustable fit. This sleeve connection permits the pilot and its house contents to be inserted in or out, and also to be rotated as may be necessary to meet the requirements of each particular case.

This pilot house with its contents, will be sold separately if desired, and can be attached to any other make of burner, in which case those adjustable features will be appreciated.

Pilot House Generator and Gasoline Regulator 14 inch, each \$10; 16 inch \$12; 18 inch \$15; 20 inch \$18. If Gasoline Regulator is not wanted, deduct \$4.00 from price.

# THE AJAX STEAM ENGINES.



Price	\$100.00
Price	\$190.00

**THE ABOVE PRICES INCLUDE PUMP.**

The 5 H. P. Engine has cylinders  $2\frac{1}{2} \times 3\frac{1}{4}$  in., all its working parts are made of dropped forged steel, case hardened. The crank shaft, crank pins and eccentrics have ball bearings and run absolutely smooth. The balls on the crank shaft are  $\frac{5}{8}$  in., on the crank pins  $\frac{1}{4}$  in., and on the eccentric  $\frac{1}{4}$  in. The piston rods and valve stems are made of Tobin Bronze, which has besides being rust proof, the tensile strength of mild steel. The engine is fitted with a 12 tooth sprocket, 1 in. pitch for  $\frac{1}{4}$  in. block chain. The wrist pins are hardened and then ground to a perfect fit, and are always interchangeable. The cross head end of connecting rod has hardened steel bushing, ground to a bearing which can be very easily replaced if necessary. The 10 H. P. Engine has cylinders  $3\frac{1}{2} \times 4$  in. It has  $\frac{5}{8}$  in. balls on crank shaft,  $\frac{5}{8}$  in. balls on crank pins, and  $\frac{5}{8}$  in. balls on eccentrics. This engine is fitted with 15 tooth sprocket,  $\frac{1}{2}$  in. pitch for  $\frac{5}{8}$  in. roller chain.

These engines we recommend to the trade as being the finest type introduced for automobile purposes. They have proved themselves a pronounced success, having maintained a speed of 1.15 in the recent eastern trial races, the fastest time ever made by a steam motor car, and came through without a flaw or strain.

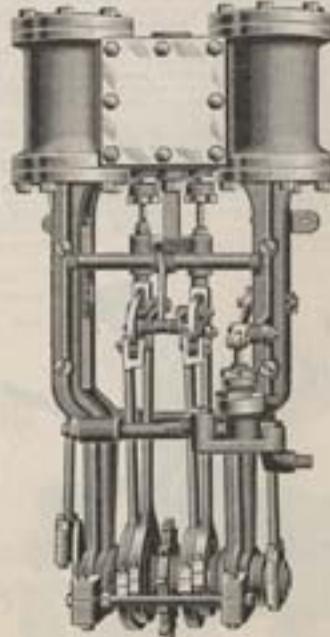
We can equip these engines with gasoline or fuel pump at an additional charge of \$10.00 each.

## THE "STANDARD" STEAM AUTO ENGINE.

**Especially adapted for the popular Runabout or Surrey type of Steam Carriage used on No. 15 and 25 Steam Outfits. Ball Bearing.**

**Direction.**— $2\frac{1}{2}$  inch  $\times 3\frac{1}{4}$  inch cylinders, developing 4½ H. P., made of best quality grey cast iron. The frames made wholly of composition gun metal. The connecting rods are steel made from drop forgings; the boxes are of bronze. Has V-shaped double slides each side of the crossheads. The two main bearings are wide and heavy, being  $1\frac{1}{4}$  inches in breadth each side of the sprocket where the strain of the entire running gear of the carriage is encountered. The valves are fitted by being scraped to their seats and warranted to be tight. They are set to cut-off so as to use steam expensively. The pistons have double rings pinned in their places and are warranted to be tight. Packing boxes contain glands and the nuts are held by steel springs so as not to change their position. The small bearings and steel pins are hardened so as to secure the longest possible period of endurance and life to the bearings. The cylinders are provided with heavy asbestos jackets covered with cloth and painted. The engine is also provided with oil pockets which are very essential in a plain bearing engine running at high speed. Equipped with  $\frac{5}{8}$  inch sprockets. Weight 40 pounds.

PRICE                                  \$93.50



Thoroughly  
Reliable.

Mechanism  
Simple  
and  
Serviceable.

Regular  
Locomotive  
Style of  
Link and  
Valve.

## COMPLETE SET OF CASTINGS OF STEAM ENGINES.

We will furnish the following parts at prices named. Complete set of Castings for No. 15 Steam Engine as follows: Cylinders and steam chest with caps, covers and valves, 2 frames, 2 frame caps, 2 main rods, 4 eccentrics, 4 eccentric straps, 2 links, 2 rocker arm, 2 eccentric links, 1 valve stem guide and 2 cross heads, with blue print, \$25.00. Boring Cylinders and facing valves for same, \$16.00. Crank Axle (rough) for same, \$7.00. Turning andquartering crank axle for same, \$16.00.

# Dayton Automatic Fuel Regulator—New Type.



Fig. 1.  
**DESCRIPTION.**

The "Dayton" Automatic Gasoline Regulator, herewith illustrated, is made in two styles, as shown in Fig. 1. The head is set in at B and is fastened at B and is connected to a small valve stem by means of a steel spring metal. Fig. 2 is the style used with the "Dayton" regulator in which the end of the Regulator (K) passes into the Pilot House within which the valve controlling the fuel is placed, in all other respects the construction of both is the same.

The head B is composed of two brass discs turned true and fastened together by accurately fitted steel screws, thus insuring an absolutely tight joint. Between these two discs is placed a diaphragm made of the best spring metal. This head is screwed onto the body of the Regulator and can be removed for examining the spring and valve stem without disturbing the diaphragm.

The body E of the Regulator is made of brass and is bored out to receive a steel tube in which the steel compression spring D is placed. This compression spring is coated beneath the bottom head C so that the valve stem J will pass through it and is compressed to the desired tension by the wind H which passes through the packing gland G. There is no packing around the valve stem J anywhere; consequently it is always free to move under the slightest change in pressure.

Unless otherwise instructed, we set the compression spring D so that combined with 40 pounds of air pressure in the gasoline tank it will maintain a boiler pressure of 300 pounds per square inch, and every Regulator is subjected to a working test, and its accuracy proved before shipping.

## OPERATION.

Connect the Regulator with the steam boiler A and provide a valve in the steam pipe so the Regulator can be cut out at the will of the operator in case he desires temporarily to carry a higher steam pressure than the Regulator is set for. In connecting Fig. 2 with the fuel supply care must be taken to have the pressure from the gasoline tank enter the seat of the Regulator back of the needle valve, so it can pass through the check valve caused by the valve stem, and press against the diaphragm in the head. Fig. 1 is no connection.

When the steam pressure in the boiler exceeds the amount for which the regulator is set, it overcomes the pressure exerted by the compres-

The engravings show the "The Dayton" Automatic Fuel Regulator—position. We regard it as indispensable to a first-class outfit, but it may be left off and the fire regulated by hand, if desired, or any other regulator may be substituted for it.

We claim for our New "Dayton" Regulator all the good points found in any of the other regulators of the same type now in use, and the following points of advantage over any other:

1. The "Dayton" is the only gasoline Regulator the head of which is screwed onto the body, thus giving quick and easy access to the valve, valve stem, and tension spring, without taking apart the head or disturbing the diaphragm.

2. The "Dayton" is the only Gasoline Regulator of this type in which the valve stem is not surrounded by a packing gland, and is left perfectly free to respond to the slightest variation, and can therefore be depended upon to continuously maintain a uniform boiler pressure.

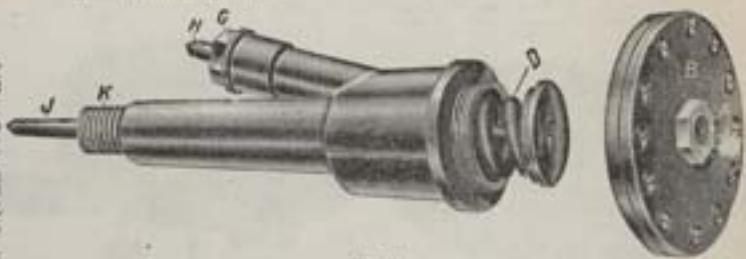


Fig. 2.

sion spring and the gasoline or air pressure combined and presses the metal diaphragm against the bottom head C and its attached stem J, thus closing the needle valve and shutting off the fuel. As quick as the steam pressure in the boiler will bear the valves are set, the above action is reversed, and the fuel turned on. As the pressure in the boiler goes up or down the resistance to the free movement of the valve stem J is increased, and the regulator can and will automatically maintain the desired boiler pressure, a result, the importance of which will be appreciated by every intelligent user of a steam carriage, and which cannot be obtained with any regulator the valve stem of which passes through a packing gland.

## ADVANTAGES.

We claim for our New "Dayton" Regulator all the good points found in any of the other regulators of the same type now in use, and the following points of advantage over any other:

1. The "Dayton" is the only Gasoline Regulator the head of which is screwed onto the body, thus giving quick and easy access to the valve, valve stem and tension spring, without taking apart the head or disturbing the diaphragm.

2. The "Dayton" is the only Gasoline Regulator of this type in which the valve stem is not surrounded by a packing gland and is left perfectly free to respond to the slightest variation, and can therefore be depended upon to continuously maintain a uniform boiler pressure.

## THE DAYTON REGULATOR, LIST PRICE, EACH \$6.00.

"The Dayton" Lever Throttle Valve and Flexible Double Joint Connection.

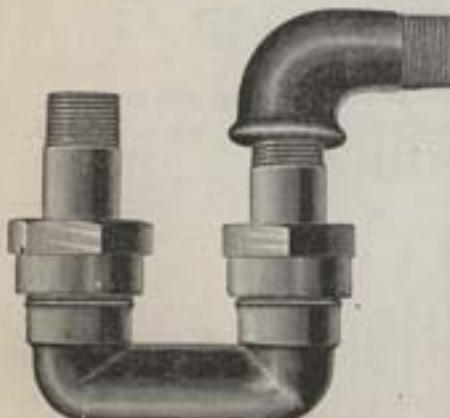
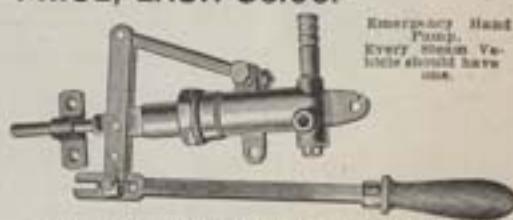


FIG. 1.

Fig. 1—Flexible Double Joint Return Bend for connecting Throttle Valve to Engine.  
Brass, 3/4 in., \$5.00. Brass, 1/2 in., \$4.50.

Fig. 2—"The Dayton" Lever Throttle Valve, Packing Gland Provided.  
Brass, 3/4 in., \$2.00. Brass, 1/2 in., \$1.50. Brass, 1/4 in., \$1.00.

Throttle Valve and Flexible Double Joint Connection, like Fig. 1.  
3/4 in., \$8.00. 1/2 in., \$6.00.



The Hand Pump fastens to frame of bed and will fill a boiler two or three minutes.

Price \$8.00.

### "THE DAYTON" PUMP.

The Engine Crosshead Pump fits one inch hole in a bracket on frame of engine, and operates from the cross head pin, price, 5 1/2 in., \$1.50. 3 1/2 in., \$1.00. Automatic Pump, Price, \$8.00. Fastes to Crosshead.

### The Locke Tank Filler.

PRICE, \$2.00.



THE LOCKE PUMP.  
\$2.00.

## STEAM BOILERS FOR AUTOMOBILES.

### OUR "STANDARD" STEAM BOILERS--Steel.

WITH DRILLED BOTTOMS.

DESCRIPTION.—Steel shell 3-16 in. thick, 30 oz. per cu. in., steel heads, riveted in; steel tubes 1/2 in. 20 gauge expanded and spun in reamed holes (not punched).		WITH DRILLED BOTTOMS.	
12X12, 120 lb. in. Flues, 20 gauge	10.00	12X12, 100 lb. in. Flues, 20 gauge	8.80 10
14X12, 200 "	12.00	14X12, 200 "	10.00
14X12, 200 "	12.00	14X12, 200 "	10.00
15X12, 200 "	12.00	15X12, 200 "	10.00

### LARGER SIZES SPECIAL.

The above boilers are tested to 600 lbs. C. W., have fusible safety plugs and are fully guaranteed. If with copper tubes add 10¢, list, per tube for 12 in., 12¢ per tube, list, for 14 in., 14¢ per tube, list, for 15 in. length.

### EXTRA TUBES.

Steel Tubes, 1/2 in. .... price per foot, 30¢  
Copper Tubes, 1/2 in. .... 12¢

### COPPER BOILERS.

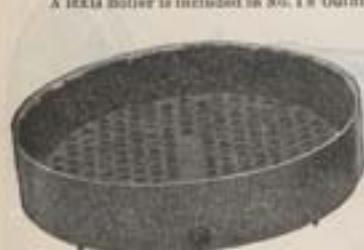
Standard pattern. Made of seamless copper shell, heads and rings made of best grade of boiler steel 3-16 in. thick, securely riveted to shell with 1/4 in. x 3/8 in. rivets. Heads drilled and reamed for 300 w. in. 20 gauge copper tubes. Carefully wound with three layers of 20 gauge piano wire.  
12X12. Price complete, with jacket and safety plug, \$10.00.  
15X12. 300 tubes.

Tubes, 1/2 in., steel.

Extra Tubes, 1/2 in., copper, flanged at one end.

A 15X12 Boiler is included in No. 12 outfit.

### EXTRA TUBES.



LOCKE.



LOCKE.



FORGE BURNER.

12 inches	120 Tubes	\$17.00
13 "	120	22.00
15 "	120	27.00



Top View.

Dim.	Length	No. of Tubes.	Heating surface,	Horse Power,	List Price	List Price
of Boiler.	Tubes.	Total Wt.	sq. ft.	Steel	Copper	Floors.
14	12	100	112	.40	216	216.00
16	12	140	168	.60	300	300.00
18	12	180	216	.80	372	372.00
20	12	216	272	1.00	448	448.00

Boilers shown on this page are fitted with Hanging Irons, Fusible Plug, and tapped for Water and Steam Connections.

### THE UNIVERSAL TRUCK BOILER.

Our 12-inch Boiler gives 12-1/2 horse power and weighs 600 lbs. It has 1,800 1/2-inch tubes 12 inches long. The shell is 3-16 stock and 20 inches high. The two heads are riveted in. We make this boiler with either steel or copper tubes, and with dry plate or without, as specified. This Boiler is fitted with heavy hanging iron, tapped for steam or water and highly tested. List Price, \$3.50 each.

Our 14-inch Boiler, with tubes 22 inches long, gives 20 horse power, List price, \$3.00 each.

### BOILER TUBE CLEANER.

All Boiler Flues must be cleaned of scale occasionally. The Locomotives and Motor cars and all steam autos that have 1/2 inch Boilers. No. 1. Heavy brass, size No. 2. Brass Wire, \$1.00.

### BOILER COMPOUND.

Will remove all scale and grease from the boiler. One teaspoonful per quart will keep a boiler which is used continuously free from scale.

Price, \$1.00 per quart.

### The Locke Combination Burner, Generator and Regulator.

Complete, as shown above, 14 in.	\$17.00
" " 16 in.	44.00
" " 18 in., choice	
of Bug or Kelly Generators	49.00
Burners only, 18 in.	25.00
" " 20 in.	38.00
" " 22 in.	37.00
" " 24 in.	43.00

### THE DRY PLATE BOILER.

The Advantages are as follows.—The dry plate between the flanges prevents boiling. It would be impossible for water to get into the steam space above the dry plate. All of the tubes pass through this plate. There are enough small holes through the plate to allow the steam generated to pass into steam space above it. The dry plate is placed above the water line.

As we keep the water separated from the steam, by means of said plate, the tube service above the dry plate acts as an insulator, thus is very desirable on steam carriages, where we expect steam to be used. Where a very little high velocity exhaust pipe from engine, dry steam means great economy.

The shells are seamless and the heads are a part of the shell. There are no seams or rivets near the fire. There is but one seam, and this acts as an expansion joint. As the tubes in all internally-fired boilers expand before the outer shell, this expansion joint takes care of the difference in expansion between the tubes and shell; this joint also strengthens the boiler.

The steam carriage boiler is the one to use as it gives absolutely dry steam, and is strong and safe.

Dim.	Length	No. of Tubes.	Half Boiler.	Total Wt.	Heating surface,	Horse Power,	List Price	List Price
14 in.	18 in.	300	100	112 lbs.	43.8-50	8.0-10	\$12.00	\$12.00
16 "	22 "	400	100	140 lbs.	50-55	8.0-10	17.00	17.00
18 "	22 "	500	100	180 lbs.	55-60	10.0-12	22.00	22.00

The above sizes are regular stock, and orders can be filled from stock. We can furnish any size boiler wanted.

### Type X—Automobile Boiler with Burner.

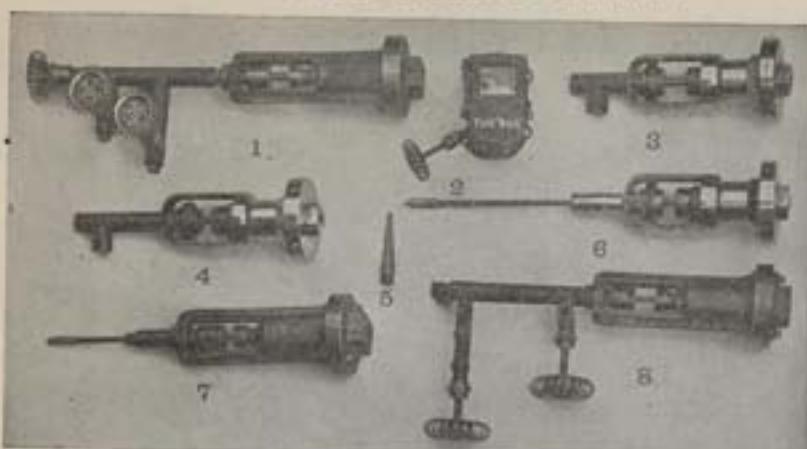
Which Can be Readily Detached.



Boilers are made of seamless, cold drawn steel shells in the following sizes (inside measurement): 14, 15, 17, 19 and 20 inch diameter, and can be furnished with either copper or steel tubing, or if preferred, we can furnish without tubing, but with 1/2 inch holes drilled and reamed (16 threads). All boilers are fitted with hanging irons.

List price of Boilers with burners attached:

14 in.	with 100 half-inch copper tubes	\$125.00
15 "	" "	135.00
17 "	" "	155.00
19 "	" "	175.00
20 "	" "	195.00

**STEAM FITTINGS**FOR PRICES  
SEE PAGE 48

The  
RELIANCE  
LOW  
WATER  
ALARM.

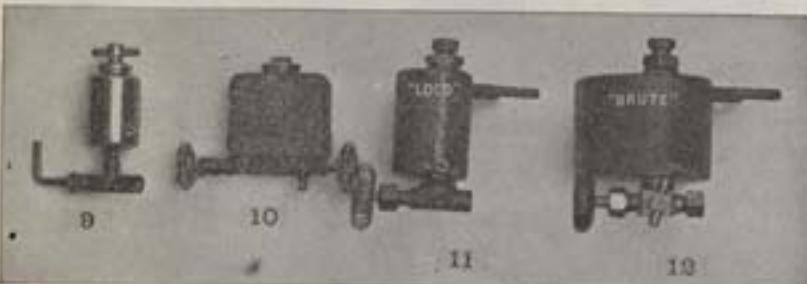
Safe, Sure,  
Successful.

Length, 7½ inches  
Diameter, ¾ inches  
Weight, 4 pounds



Price, Low Water  
Alarm, \$15.00

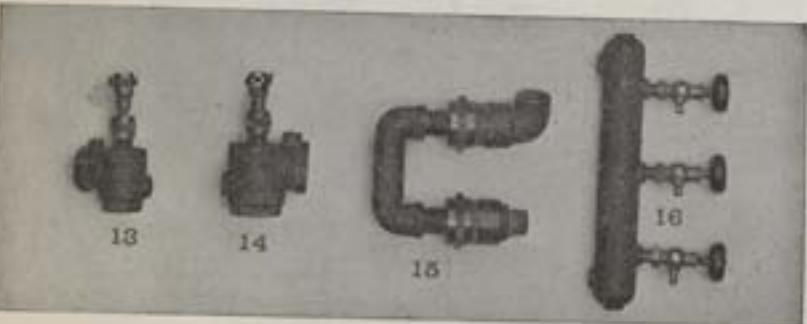
Price, Water  
Gauge, \$1.50



**ACME STEAM THROTTLE.**  
SAFE, ECONOMICAL AND  
DURABLE.

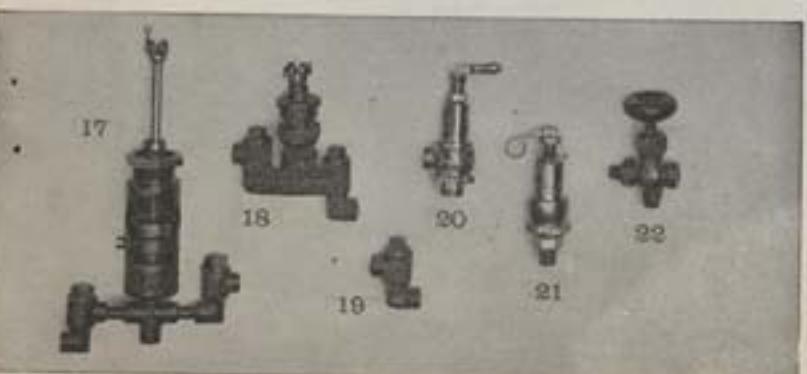
Warranted not to leak. Any amount of steam desired can be admitted to the engine and valve will remain in any position without being held by operator.

PRICE \_\_\_\_\_ \$6.25

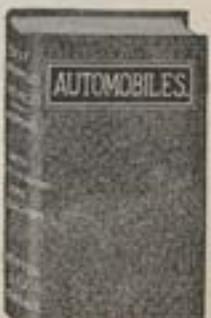
**OFELEDT REGULATORS.**

Have No Packing  
Have No Leak  
Patented spec  
Weight, 2 lbs.

PRICE \_\_\_\_\_ \$5.00  
Most accurate fuel regulating device ever invented. Will positively regulate within two pounds. Diaphragm acts directly on fuel valve. SIMPLE and SENSITIVE. We guarantee satisfaction.



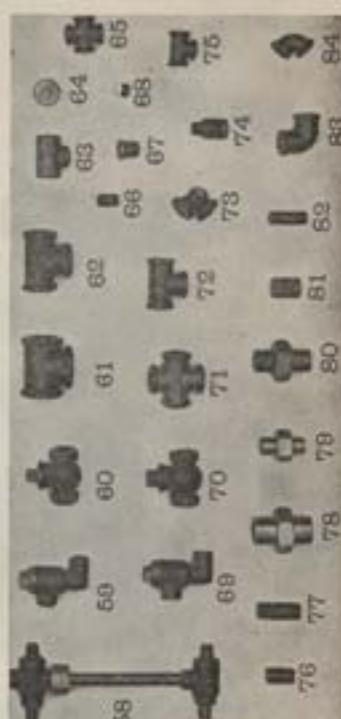
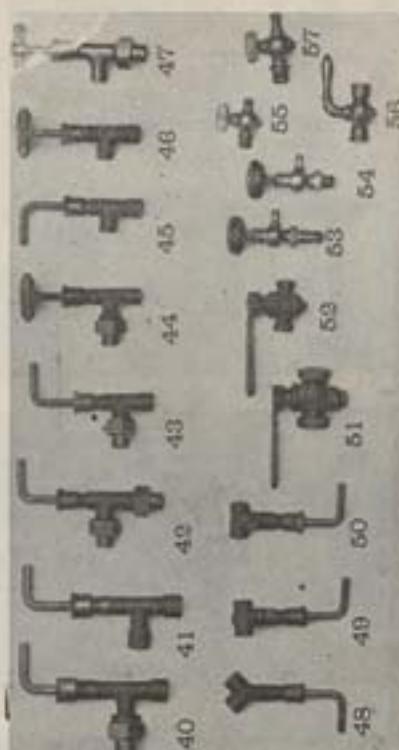
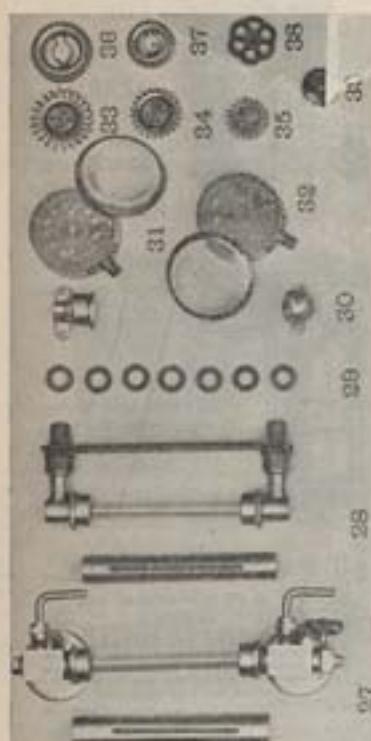
OVER 600 PAGES.  
FULLY ILLUSTRATED  
The Finest Publication Out  
Price, \$5.00



PLEASE ORDER BY NUMBER AND PAGE.

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# STEAM FITTINGS.



## PRICES ON FITTINGS.

No.	Description	Price	No.	Description	Price
1.	Bentz All Regulator and Jet Valves combined	\$11.00	48.	Needle or Pin Valve, one union, 1/2 in.	80
2.	The Big Generator	\$10.00	49.	Needle or Pin Valve, one union, with wire wheel handle	80
3.	Bentz All Regulator, short nose	\$1.00	50.	Needle or Pin Valve, plain	80
4.	Bentz All Regulator, long nose	\$1.00	51.	Needle or Pin Valve, plain, with wire wheel handle	80
5.	Burner Jets	each, \$1.00	52.	Needle or Pin Valve, one union, designed for gasoline carriage, 1/2 in., polished	80
6.	Bentz All Long Stem Generator	\$1.00	53.	Y-shaped Pin Valve Drip, 1/2 in.	80
7.	Bentz All Short Stem Generator	\$1.00	54.	Three-way Pin Valve Drip, 1/2 in.	80
8.	Bentz All with Jet Valve combined. This style is adopted especially for big Generator and old truck style.	\$1.00	55.	Straight-way Pin Valve Drip, 1/2 in.	80
9.	Plain Blast Otter	\$1.00	56.	Steam Cock, 1/2 in., iron handle	80
10.	Condensed Cylinder Otter, improved, will feed an engine for 10 miles	\$1.00	57.	Steam Cock, 1/2 in., iron handle, vertical	80
11.	Loco Otter, bolts enough to feed an engine for 10 miles	\$1.00	58.	Try Cock, long shank, worked	80
12.	Auer Faunus Blast Otter, will feed an engine for 10 miles	\$1.00	59.	Try Cock, plain	80
13.	Throttle Valve, 1/2 in., absolutely steam tight	\$1.00	60.	Air Cock, 1/2 in.	80
14.	Throttle Valve, 1/2 in., absolutely steam tight	\$1.00	61.	Steam Gauge, female	80
15.	Throttle Valve and Flare Nut Swivel Joint, 1/2 in.	\$1.00	62.	Stop Cock, 1/2 in.	80
16.	Throttle Valve and Flare Nut Swivel Joint, 1/2 in., swing joint, without throttle, 1/2 in.	\$1.00	63.	Cylinder Relief Valve	80
17.	Water Gauge, complete, with nickelated gauge cocks	\$1.00	64.	Check Valve, 1/2 in.	80
18.	Engine Cross-Head Fuel Pump	\$1.00	65.	Check Valve, 1/2 in., horizontal	80
19.	Engine Cross-Head Water Pump	\$1.00	66.	T, 1/2 in.	80
20.	1/2 in. Check Valve	\$1.00	67.	Reducing T, 1/2 in. x 1/2 in.	80
21.	Check Valve	\$1.00	68.	Cross, 1/2 in.	80
22.	Safety or Pop Valve, set at any pressure ordered	\$1.00	69.	Close Nipple, 1/2 in.	80
23.	Safety Valve, plain hopped, for both 1/2 in. & 1/4 in. connections	\$1.00	70.	Flushing, 1/2 in.	80
24.	Barometric Automatic Gauge Valves	\$1.00	71.	Flug, 1/2 in.	80
25.	Automatic safety Glass Gauge, shuts off escape of steam when gauge breaks	\$1.00	72.	Check Valve, 1/2 in.	80
26.	Gauge glass	\$1.00	73.	Check Valve, 1/2 in., horizontal	80
27.	Barometer Gauge Fitting	per doz.	74.	Cross, 1/2 in.	80
28.	Tank Gauge, 1/2 in., to show height of water in tank, complete, with glass, etc.	\$1.00	75.	Three-way Elbow	80
29.	Air Gauge, 100 lb.	\$1.00	76.	Barber Nipple	80
30.	Steam Gauge, 1/2 in.	\$1.00	77.	Close Nipple, 1/2 in.	80
31.	Wire Wheel	\$1.00	78.	Close Nipple, 1/4 in.	80
32.	Iron Wheel	\$1.00	79.	Union, 1/2 in.	80
33.	Wood Wheel	\$1.00	80.	Union, 1/4 in.	80
34.	Needle or Pin Valve, one union, 1/2 in.	\$1.00	81.	Coupling, 1/2 in.	80
35.	Needle or Pin Valve, plain, 1/2 in.	\$1.00	82.	Space Nipple, 1/2 in.	80
36.	Needle or Pin Valve, two unions, 1/2 in.	\$1.00	83.	Elbow, 1/2 in.	80

## STEAM CAR SUPPLIES AND SPECIALTIES.



No. 1.  
Price, No. 1..... \$1.00  
Price glass alone..... 62c  
Price No. 2—Double Mirror..... 2.75



No. 1.



Our Standard Injector.



ROLLER TUBE EXPANDER..... \$3.75.

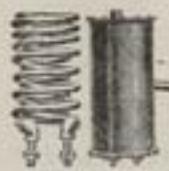


SAFETY FUSIBLE PLUG.....

Tapped to inch..... \$1.00

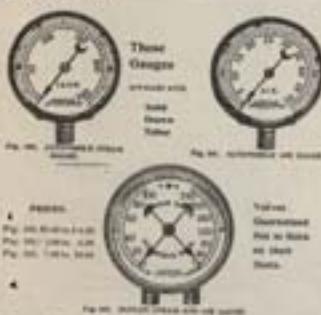
FUSIBLE PLUG.....

### FEED WATER HEATER.



Not absolutely necessary but a great fuel saver, and makes steaming easier.

Price..... \$15.00



BEST INSPECTED AUTOMATIC BOILER FEED PUMP FOR STEAM. Single Plunger Air Pump. Single Plunger Water Pump. Continuous Air and Boiler Feed. GUARANTEED.

#### AUTOMOTIVE BOILER PUMP—Single.

My advice now is Pump 40 for Motor Cars etc.

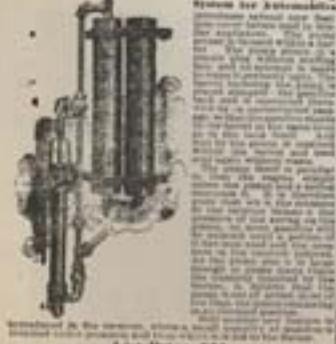


See Price, \$5.00.

This pump not recommended for single cylinder motor boats. It has two plungers, 1-1/2" stroke diameter, 25 pounds, 15 pounds, 10 pounds, 5 pounds, 2 pounds, 1 pound, and 1/2 pound. It can be used in all kinds of boats and marine work.

PHILIPS GASOLINE PUMP FOR AUTOMOBILES. Suitable for early type gasoline tanks. Also good for gasoline tanks, especially for early Ford. Pump also fits on many cars, trucks, and buggies, including the latest Ford, and on early Buicks, and other early cars. Pump will fit on any car, truck, or buggy, which has a gasoline tank.

#### The Philips Pumping System for Automobiles



See Price, \$25.



No. 1.



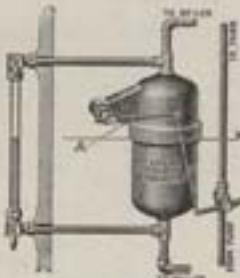
Our Standard Injector.



1/4 inch connection for steam.

1/4 inch connection for water.

Price..... \$6.25



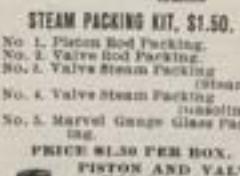
THE LOCKE AUTOMATIC

WATER LEVEL REGU-

LATOR.

Relieves the operator of the anxiety of watching the mirror, and reduces the liability of burning out the boiler. It is 4 in. wide, 7 inches high; weight complete 7 pounds.

Price, each..... \$1.00



PRICE \$1.50 PER BOX.

#### PISTON AND VALVE ROD PACKING.

Special Form.

No. 1. Piston Rod Pack-

ing.

No. 2. Valve Rod Pack-

ing.

1 lb. packages, \$5.50 per lb.

#### VALVE STEM PACKING

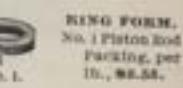
No. 1.

No. 2. List price  
1 lb. packages  
\$2.50 per lb.

#### VALVE STEM PACKING

No. 2.

List Price, per lb.  
package, \$1.50

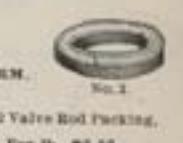


RING FORM.

No. 1 Piston Rod

Packing, per

lb., \$6.25.



RING  
FORM.

No. 2 Valve Rod Packing,

per lb., \$2.50.

## Pop Safety Valve.

Style C can be regulated to blow off at any pressure.

\$2.50.

Style D—With connection so that the steam can be discharged into muffler or water tank.

\$3.50.

#### KITT'S LOW WATER ALARM.

We use a solid gravity weight unaffected by steam pressure, and not a hollow ball float.

Alarm is made of brass, weight 3 pounds, is 11 inches long by 46 inches diameter and is tested with 500 pounds cold water pressure to square inch.

Price, alarm complete, with whistles, bell, union, cross, blow-off, valve and piping sufficient to attach to boiler, \$12.50.

MOTORS—We do not furnish try valves with this alarm unless specially ordered.



## STEEL BOILER SHELLS.

The strongest, lightest, neatest and best boiler shell in the world. The shells have bottom drawn with shell in one, and are recommended as not only the most popular (being used by nearly every automobile maker of note), but the best on the market for the purpose.

### Price List of Boiler Shells and Loose Heads.

Diam. In.	Thickness of Wall	Length of Shell				Price of Loose Heads
		13 in.	14 in.	15 in.	16 in.	
12 in.	.130 in.	\$ 5.70	\$ 9.15	\$ 9.90	\$ 10.80	\$12.00
14 in.	.3-16 in.	10.80	10.95	12.00	12.60	13.20
16 in.	.3-16 in.	12.75	13.35	13.80	14.25	14.85
18 in.	.3-16 in.	16.95	17.70	18.45	19.05	20.25
20 in.	.3-16 in.	18.75	19.32	19.80	19.97	20.97
22 in.	.3-16 in.	23.25	24.25	24.97	26.30	27.75
24 in.	.3-16 in.	26.50	27.50	28.25	29.75	30.00

See page 37 for prices on Boiler Tubes.

## Seamless Steel Tanks for Gasoline, Etc.

These tanks are seamless throughout, heavily tinned inside and outside, and tested to an hydraulic pressure of over 300 pounds per square inch.

Length.	Internal Diameter.					
	8 in.	7 in.	6 in.	5 in.	4 in.	3 in.
12 in.	\$6.30	\$6.40	—	—	—	—
15 in.	8.40	6.50	—	—	—	—
18 in.	6.50	6.60	\$6.70	\$6.80	\$7.00	\$7.20
20 in.	6.00	6.00	7.10	7.20	7.30	7.60
22 in.	6.80	7.25	7.60	7.60	7.75	8.00
24 in.	7.00	7.60	7.90	8.00	8.10	8.40
28 in.	7.80	8.40	8.70	8.80	9.00	9.40
30 in.	8.40	8.80	9.00	9.20	9.40	11.80

The most popular sizes are 8 in., 10 in., 22 in., 24 in., 28 in.

**Gasoline Tanks,** generally 8 in. x 24.; **Air Tanks,** 9 in. x 15 in. — $\frac{1}{2}$  in. Tap; **Mufflers,** 5 x 9— $\frac{1}{2}$  in. or 1 in. Tap.

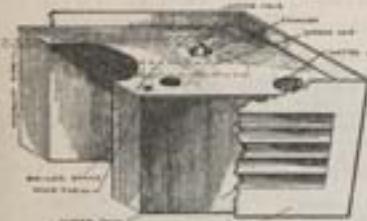
## WATER TANKS.

This style Water Tank is supplied with our outfit on page 40. It not only economizes space and allows of greater capacity, but accommodates the boiler in the recessed part, thereby tending to heat the water before passing into the boiler.

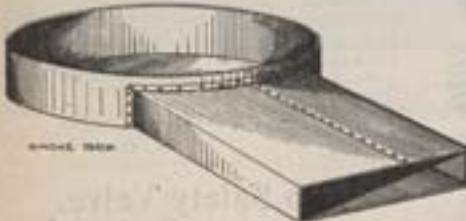
### WATER STORAGE TANKS.

Made to fit the body, as per illustration on page 40. Galvanized Iron, size 22x22x22 inches, each, \$15.00 net. — " — " 20x20x20 " — " 12.00 " — " — " — " — " 14.00 "

For Copper Tanks advance 10 per cent. list. The sizes are approximate only. We make these Tanks any size to fit inside the body.



Hoods and Smoke Domes.



Made to fit our Boilers.

Price, each, 14 in. and 16 in. \$6.50  
17 in. to 20 in. \$5.00

## COPPER AIR AND GASOLINE TANKS.

Complete, with In and Out Openings.

Tank 1 inch	each, \$9.00
2x2 " "	" 8.10
2x3 " "	" 7.10
2x4 " "	" 6.90
3x3 " "	" 8.00
3x4 " "	" 7.30
3x5 " "	" 7.00

As we manufacture these Tanks, we can make them any size desired. Please state dimensions approximately. The price.

