

Business and Personal Wants.

READ THIS COLUMN CAREFULLY.—You will find inquiries for certain classes of articles numbered in consecutive order. If you manufacture these goods write us at once and we will send you the name and address of the party desiring the information. In every case it is necessary to give the number of the inquiry.
MUNN & CO.

- Marine Iron Works. Chicago. Catalogue free.
- Inquiry No. 7660.**—For makers of oil burner capable of use in a wood heater.
- "U. S." Metal Polish. Indianapolis. Samples free.
- Inquiry No. 7661.**—Wanted, a manufacturer to make pressed paper tubing, particularly strong and durable, 140 millimeters inward clear diameter and corresponding thickness, to bear inward pressure of nearly 20 atmospheres; tubes to be about 120 centimeters long.
- Drying Machinery and Presses.** Biles, Louisville, Ky.
- Inquiry No. 7662.**—For makers of portable table to be attached to any chair.
- WANTED.—Purchaser for Monazite, Molybdenite and Wolfram. Apply Monasite, Box 773, New York.
- Inquiry No. 7663.**—For manufacturers of powder in bulk, made from silica rock.
- I sell patents. To buy, or having one to sell, write Chas. A. Scott, 719 Mutual Life Building, Buffalo, N. Y.
- Inquiry No. 7664.**—For manufacturers of machinery for making, nailing, etc., wooden boxes, as large as 29 x 19.5 x 11.7 inches.
- The celebrated "Hornsey-Akroyd" Patent Safety Oil Engine is built by the De La Vergne Machine Company, Foot of East 138th Street, New York.
- Inquiry No. 7665.**—For manufacturers of pins.
- WANTED.—Ideas regarding patentable device for water well paste or mudjag bottle. Address Adhesive, P. O. Box 773, New York.
- Inquiry No. 7666.**—Wanted, makers of small water tube boilers for marine use.
- I have for sale the U. S. and all foreign rights of new patent improvements in Water Tube Types of Boilers, Great economizer. J. M. Colman, Everett, Wash.
- Inquiry No. 7667.**—For manufacturers of dental goods, such as teeth and filing materials.
- Young American permanently residing in Lima, Peru, S. America, wishes to hear from firms interested to be represented there. Further information, K. Thorn, Milford, Mass., P. O. Box 18.
- Inquiry No. 7668.**—For parties engaged in erecting fire escapes.
- FOR SALE — PATENTS. — Life saver; great money maker; it is a great invention; something never introduced before; can be seen; only buyers. Apply by letter, Nicholson, 651 3d Avenue.
- Inquiry No. 7669.**—Wanted, addresses of makers of two-cycle gas engines.
- Manufacturers of patent articles, dies, metal stamping, screw machine work, hardware specialties, machinery tools and wood fibre products. Quadriga Manufacturing Company, 18 South Canal St., Chicago.
- Inquiry No. 7670.**—For dealers in name plates, trunk emblems, old badges, etc.
- PATENTS.—Wanted, the service of a patent expert and experienced specification writer. No one need apply who has not had a thorough education along technical lines, and who has not had experience in patent practice. Munn & Co., 361 Broadway, New York.
- Inquiry No. 7671.**—For manufacturers of producer gas machines.
- Sawmill machinery and outfits manufactured by the Lane Mfg. Co., Box 13, Montpelier, Vt.
- Inquiry No. 7672.**—For manufacturers of astronomical telescopes.
- Inquiry No. 7673.**—Wanted, manufacturers of railroad iron.
- Inquiry No. 7674.**—Wanted, makers of elastic bed mattresses and pillows.
- Inquiry No. 7675.**—Wanted, name and address of the makers of the Electric Shoe-shining Machine.
- Inquiry No. 7676.**—For makers of wire artists' supplies, such as jewelry and beads.
- Inquiry No. 7677.**—Wanted, a 1,000-foot gas holder.
- Inquiry No. 7678.**—Wanted, hand knitting machines for cheap cotton stockings.
- Inquiry No. 7679.**—For makers of thermostats and heat regulators.
- Inquiry No. 7680.**—For manufacturers of molds for molding plaster.
- Inquiry No. 7681.**—For dealers in crude rubber.
- Inquiry No. 7682.**—Wanted, manufacturers of glass bottles.
- Inquiry No. 7683.**—For dealers in Canada or Brazil wax.
- Inquiry No. 7684.**—Wanted, makers of machines for weaving "K" woven wire fence.
- Inquiry No. 7685.**—Wanted, catalogues of the latest fire extinguishers by carbonic acid or other chemicals.
- Inquiry No. 7686.**—Wanted, makers of advertising clocks, about 6 feet high by 2 feet wide.
- Inquiry No. 7687.**—Wanted, a pump for drawing water out of a suck line for natural gas.
- Inquiry No. 7688.**—Wanted, machines for drying, cutting and evaporating fruits.
- Inquiry No. 7689.**—Wanted, makers of apparatus suitable for general metallurgical and heating purposes.
- Inquiry No. 7690.**—For makers of parts with which to construct a dynamo.
- Inquiry No. 7691.**—Wanted, recipes for making first-class rubber-stamp ink.
- Inquiry No. 7692.**—Wanted, recipes for making colored mill crayons.
- Inquiry No. 7693.**—Wanted, makers of hosiery machines, also of a machine by which 2 to 3 dozen Guernsey frocks can be made in 8 hours.
- Inquiry No. 7694.**—Wanted, a cement-making apparatus for mixing rubber cements.
- Inquiry No. 7695.**—Wanted, the name and address of the makers of the celebrated Chime Hall Clock movements, tubular chimes.
- Inquiry No. 7696.**—For makers of novelties or aluminum goods.
- Inquiry No. 7697.**—For makers of coal oil stove burners, also crude oil stove burners.
- Inquiry No. 7698.**—For manufacturers of induction coils.
- Inquiry No. 7699.**—Wanted, address of parties who bend sled runners.
- Inquiry No. 7700.**—For manufacturers of peppermint.
- Inquiry No. 7701.**—For manufacturers of nails, saws, wire, hinges; also cotton goods.
- Inquiry No. 7702.**—For manufacturers of ball bearings.

THE MARMON AIR-COOLED TOURING CAR.

(Continued from page 28.)

necessary, but the large expanding-ring brakes in the rear wheels are usually ample. The rear axle has an aluminium gear case, whose two halves are cast upon two axle sleeves, thus making an integral piece of each. The wheels and differential revolve on Hyatt roller bearings. Floating interior half-axes drive the wheels through jaw clutches on the hubs. The thrust of the bevel pinion is taken up by a rolling contact of the pinion against the bevel gear—a very simple arrangement.

Aluminium is used wherever possible throughout the car. The body is constructed almost entirely of cast aluminium, as is also the dash and fenders. Vertical fenders from running board to body are one of the good features, as they keep down both dust and mud. The entire machine, with the exception of wheels and tires, is constructed in the large new addition the company has made to its plant for this purpose. The car is one of the best-built air-cooled machines on the market. That it can make fast time under all ordinary circumstances was demonstrated by its performance in the economy test held last November.

NEW FOUR-CYLINDER AIR-COOLED MOTOR,

(Continued from page 29.)

fit into notches in the shifter bars to locate them securely when the gears are completely in mesh. The bars are shifted by a single hand lever working in an H-shaped quadrant on the selective system. The selector box is dustproof, and contains a simple device which positively locks, in their neutral position, all the shifter bars except the one in use.

This transmission is modeled after the latest Mercedes speed-change gear. The shafts run on the non-adjustable ball bearings (which are also used on the road wheels), and the differential countershaft across the rear of the transmission is used for transmitting power to the wheels by means of sprockets and chains. The outer ball bearings of the countershaft are exactly under the sprockets. The advantages claimed for the transmission are that the divided shaft with one part running on the other (which makes a bearing difficult to oil and subject to great wear) is entirely avoided, while the shafts are much shorter between bearings, and hence have no tendency to spring while the intermediate gears are in use.

Six years ago the Knox Company built their first machine, fitted with a single-cylinder air-cooled motor of 4 horse-power. This was the first slow-speed motor of large bore and stroke to be made commercially successful. It was superseded by still larger motors of the double-opposed, horizontal type, and this year a still larger vertical, four-cylinder motor has been placed on the market. The cylinders of this engine have a 4 1/4-inch bore by 5 1/2-inch stroke. They are cast separately, and besides having reinforcing ribs near their base, they have about one-third fewer pins per square inch of cylinder surface, and the pins are about half the length of those that were used heretofore. Experiment has shown that the Knox cylinder is more efficient when a lesser radiating surface is used. As heretofore, everything is very substantial about the Knox car. The 1 3/8-inch crankshaft is supported in five separate bearings attached to the upper half of the crankcase. These bearings are 3 and 4 inches long, and those of the hollow wrist pins are 2 1/4 inches long. The valves, which are located in the cylinder heads, are 2 inches in diameter and interchangeable. They are made of a special steel and nickel alloy. Each valve cage fits into a pocket, from which it may be removed without disturbing any of the connections, and simply by unscrewing one nut. The valves can, therefore, be ground outside of the engine. Separate camshafts operate the inlet and exhaust valves, by means of push rods and rocker levers. Special auxiliary coil springs are

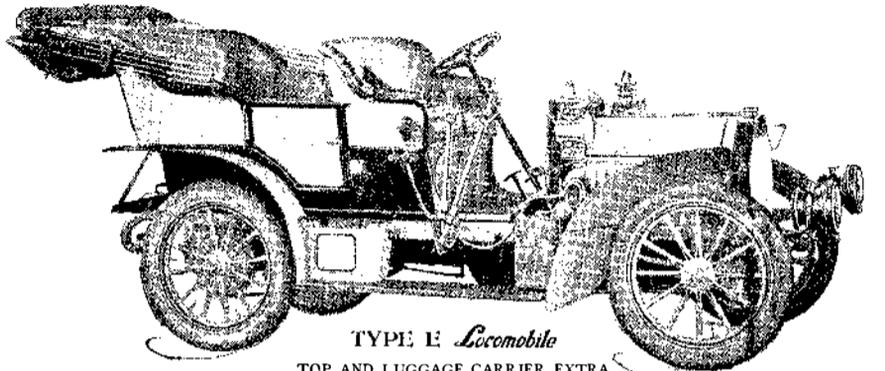
Locomobile

"Easily the Best Built Car in America"

30-35 H. P., \$5,000

15-20 H. P., \$3,000

These models are almost identical in design; contain the same carefully selected materials; and are constructed throughout with equal care. Both models are furnished with complete touring equipment



TYPE E Locomobile
TOP AND LUGGAGE CARRIER EXTRA

Specifications of Type "E" 15-20 H. P. Locomobile Price \$3,000

- EQUIPMENT, 5 brass lamps; horn; tire carrier; jack; tools and extra parts; locked box with trays for tools and parts; compartment carrying 4 tin cases for extra lubricants.
- MOTOR, 4-cylinder, 3 3/4" bore, 4 1/2" stroke; manganese bronze base; gears enclosed. Same general type as made by us for four seasons.
- CRANK SHAFT, machined from one solid forging.
- CAM SHAFTS, hardened ground forgings—one solid piece.
- CARBURETOR, automatic type with balanced throttle valve.
- IGNITION, make-and-brake system used by us for the second season. Ignition cams solid with admission cam shaft which slides in bearings to advance or retard spark.
- MAGNETO, low tension, our design; permanent magnets from the best makers in the world; impossible to disturb any electrical adjustments by removing or replacing magneto. Oil proof armature.
- LUBRICATOR, large mechanical oiler. Large supply pipes.
- GOVERNOR, centrifugal type, prompt and positive in action.
- CONTROL, gas and spark levers on steering wheel.
- CLUTCH, cone type with ample leather face.
- UNIVERSAL JOINT, between clutch and transmission.
- TRANSMISSION, 3 speeds and reverse; direct drive on high gear; clutch shifting mechanism, gears, bearings, and differential all encased and lubricated by same oiling system.
- DRIVE, double side chains; hardened sprockets.
- RUNNING BRAKE, double acting type; 3 1/2" x 10" located on differential shaft, metal to metal surfaces.
- EMERGENCY BRAKES, internal expansion type, compensated.
- Large and powerful, metal to metal surfaces.
- SPROCKET DRUM, bolted to each rear wheel spoke.
- AXLES, 3 1/2" section axles front and rear.
- TIRES, 32" x 4" on all four wheels. Larger than the size recommended by the Tire Association.
- BODY, double side entrance, seating 5; extra wide doors; fitted with top irons; color and striping optional; running boards, covered with pyramid rubber bound with brass.
- WHEEL BASE, 93".

NOTE.—Our 30-35 H. P. Locomobile Type "H" \$5,000, is intended for those requiring greater power and greater seating capacity. The specifications are the same as those printed above with the following exceptions: Motor 4 1/2-in. bore, 5 1/2-in. stroke; Body seats 5 to 7 persons; Tires, 34 in. x 4 1/2 in., front and rear; Wheel Base, 106 in. Full illustrated descriptive matter of both cars on application to factory or any branch office.

For 12c. in stamps we will mail 12 souvenir postal cards showing 12 different views of the Locomobile running in the Vanderbilt Cup Race, making the best showing of any American car in any international contest. For 10c. in stamps we will mail a five-color poster showing the Locomobile finishing the race.

The Locomobile Company of America, Bridgeport, Conn.

NEW YORK, BROADWAY and 76th St. Member Association of Licensed Automobile Manufacturers
PHILADELPHIA, 249 N. Broad St. BOSTON, 15 Berkeley St. CHICAGO, 1354 Michigan Ave.

PATENTS

The Wealth of Nations

A PATENT gives you an exclusive right to your invention for a term of seventeen years. You can sell, lease, mortgage it, assign portions of it, and grant licenses to manufacture under it. Our Patent system is responsible for much of our industrial progress and our success in competing in the markets of the world. The value of a successful Patent is in no degree commensurate with the almost nominal cost of obtaining it. In order to obtain a Patent it is necessary to employ a Patent Attorney to prepare the specifications and draw the claims. This is a special branch of the legal profession which can only be conducted successfully by experts. For nearly sixty years we have acted as solicitors for thousands of clients in all parts of the world. Our vast experience enables us to prepare and prosecute Patent cases and Trade Marks at a minimum of expense. Our work is of one quality, and the rates are the same to rich and poor. Our unbiased opinion freely given. We are happy to consult with you in person or by letter as to the probable patentability of your invention.

Hand Book on Patents, Trade Marks, etc., Sent Free on Application

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