



## WILL MAKE 600,000 MOTOR CARS IN 1913

Output of American Manufacturers To Be Doubled, Predicts Trade Journal.

NEW YORK, Nov. 23.—The tremendous output of the American manufacturers of pleasure cars, estimated by the best authorities at from 250,000 to 300,000 for 1912, pales into insignificance beside the figures for the 1913 output as gathered by The Automobile Trade Journal of Philadelphia, an authority in the automobile industry. Statements received from 109 motor car manufacturers whose output for 1913 will be \$4,450,000 pleasure cars show that if the expectations of the motor car manufacturers are realized there will be more than 600,000 cars built for 1913.

In addition to the 109 above mentioned there are 31 large factories and 37 small ones which did not announce the number of cars they purpose to make, and to these must also be added the electric pleasure cars. The following is a very conservative estimate of the 1913 output of pleasure cars:

109 manufacturers (figures furnished) ..... 534,650  
31 large manufacturers (estimated from last year) ..... 40,000  
37 small manufacturers (estimated from last year) ..... 8,000  
19 electric pleasure car manufacturers, estimated ..... 20,000  
Total ..... 627,650

### Some Figures.

There are many in the trade who will question the correctness of the estimate for 1913, but if the following table of the largest producers is carefully considered it will be seen that the increase is mainly accounted for among the largest factories, which are probably fully capable of producing the number of cars they have arranged to make. The list is as follows:

	1912.	1913.
Ford	75,000	200,000
Studebaker	40,000	50,000
Willis-Overland	25,000	40,000
R. C. H.	15,000	30,000
Dodge	15,000	25,000
Cadillac	12,000	15,000
Hupp	10,000	15,000
Oakland	6,000	13,000
Regal	5,500	10,000
Metz	5,000	10,000
Little	5,000	10,000
Chalmers	5,000	8,500
Imperial	5,000	8,000
Mitchell	5,000	8,000
Marathon	5,000	8,000
Palmer-Detroit	5,000	8,000
Briggs-Detroit	5,000	8,000
T. B. Jeffery Co.	5,000	8,000
Vellie	2,200	3,500
Abbott	2,700	4,000
Carter Car	2,500	3,500
Moon	1,200	3,500
Lozier	1,500	3,300
Apperson	1,300	3,000
Cole	2,500	3,000
Lyon	1,500	3,000
Pierce	3,000	3,000

Total ..... 537,000 499,100

It may be that the manufacturers have overestimated their market, but past experience would seem to show that the market for low-priced cars is still far from glutted. Ample proof of this is the fact that there are very few low-priced cars on the second-hand market.

Another reason which has had considerable influence on the increase in the production of these low-priced cars is the fact that so many of them are being sold in foreign markets, and there is every indication that the foreign demand will increase as rapidly as the American demand.

These two facts, together with the universal prosperity everywhere, appear to indicate that even this enormous increased output will be safely marketed.

England has several blind stenographers.

The coast line of England is 18,000 miles.

Pork eating in Paris is on the increase.

Europe's total area is 3,970,000 miles.

Fireworks were originally made and used by the ancient Chinese.

London's county council's tramways represent a system of 143 miles.

Amber is divided into 100 different kinds.

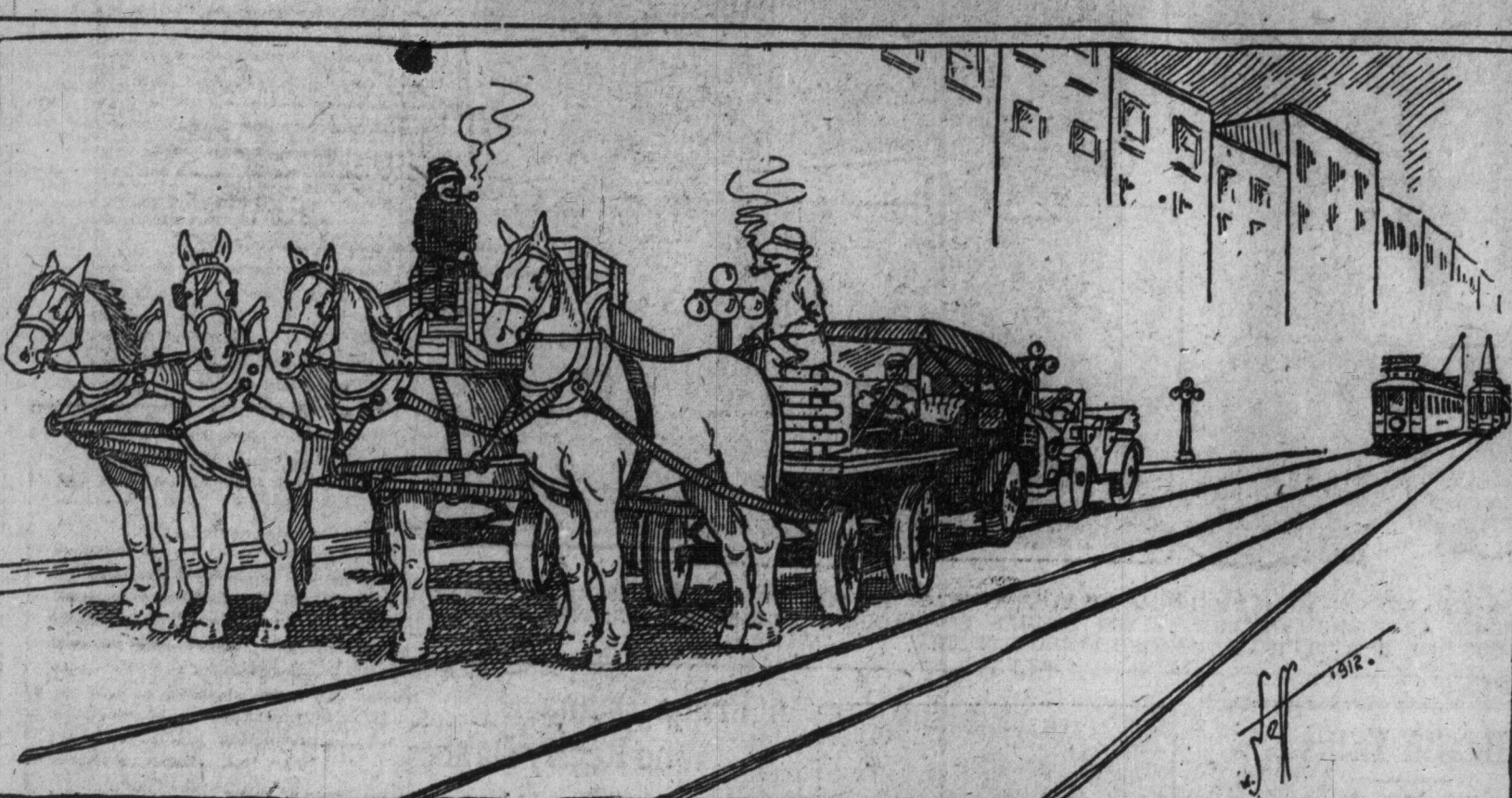
Constant use of hard water has an injurious effect on the finger nails.

September has in turn consisted of 16, 30, 31 and finally 30 days.

Aeronauts in China are known as the "sons of heaven."

An English machine makes rag health rugs at the rate of one a minute.

## HOW TEAMSTERS BREAK TRAFIC BYLAWS



Two gossiping teamsters with heavily-laden wagons drawn up alongside each other, thus blocking a large portion of the thoroughfare, is a common sight in Toronto. These men refuse to move out of the way of approaching traffic until the very last minute, thus delaying every vehicle on the road. They specially delight in blocking a motor car.

In the above illustration the artist has shown an occurrence of this kind on a street where there are street cars. If the motor, shown in the picture, was to swing round to the left and pass on the wrong car track he would probably be fined. The excuse that the teamsters were blocking the road would not be accepted.

If the police paid more attention to the regulation of horse traffic instead of watching motorists for possible offences, the number of street accidents would be considerably lessened.

## A Road Carpet

A lecture was recently delivered by a member of the road board before the Royal Institution of London on "The Road, Past, Present and Future." The lecturer said the problem was to find the best mode by which a road should be constructed so that its surface would not be broken by traffic, so that the crust might be easier for both passengers and goods, a road which would neither form puddles nor create dust. One thing was universally recognized, that the road of the future should be a truly bound road in which, whatever kind of stone was used, the stones would be held together so that it would form a crust.

The lecturer suggested that what he called a carpet or an elastic skin should be adopted as the covering. The carpet, he thought, should be made of bituminous material, according to the nature of the traffic. It should go on in liquid form, solidifying quickly, but always remaining resilient and compressible, and so integrating with the crust of the road that there could be no shifting of the surface below no matter what sort of weather it was subjected or how heavy the traffic was over the road.

The advantages of such a carpet would be to permanently protect the crust, and just as a carpet on the floor protects the floor from the wear of the carpet for the roads it would protect and reduce the shock of rolling vehicles. It was admitted that the original cost of a road so laid would be more than that of a mud-bound road, but spreading the cost over a series of years it would hardly not be so great, since the crust of the road itself would not have to be renewed.

### SLIPPERY WINTER PAVEMENTS.

A great deal of thought and money has been spent on efforts to render the car safe in mud and on wet, slippery pavements that prevail so much during the Canadian winter.

Chains are, of course, effective but expensive in the way they wear tires. If used frequently chains are said to cut the life of a tire about in half. Of non-skid tires there are many on the market and they differ in their effectiveness in about direct proportion to their numbers. Some of them meet all ordinary conditions with absolute safety to the occupants of the car and among these may be mentioned the Goodyear Non-Skid, whose special feature is the letting down of new diamond-shaped blocks to cling to the road as the centre blocks wear down with use.

The coin collection of the British Museum numbers 350,000 pieces.

Prison emigration is in the direction of Canada and Australia.

## MOTOR SENSE

These are days of motor sense! There is not any desire to remove horse sense from that mental rostrum it has occupied for so long; but motor sense goes further, hence should supersede.

Motor sense is very much needed with the man who drives his own car, and specially needed with the chauffeur who drives his employer's car.

Motor sense is best defined as being the ability to know the right thing to do at the right time, and doing it. Motor sense takes into consideration the driving of the car in so far as plotting it over the highway is concerned, but goes further and takes cognizance of the workings of the motor, the clutch and the other mechanical parts, together with care that should be given each when the car is in use, or, at least, the consideration that they deserve.

Motor sense is needed in driving. A few negatives will explain: The driver on the narrow roadway, who, holding the middle of the road, approaches a horse vehicle which he wishes to pass, until a short distance from the horse, the driver quickly advances the car, frightening the horse and terrifying some of the horse-vehicle passengers, is certainly lacking in motor sense. He is apparently ignorant of the right thing to do and is qualifying in doing the wrong thing at the wrong time.

Proper shifting of gears in country driving calls for motor sense. Many drivers forget, if they ever know, that there is a range of maximum motor efficiency speed, be that range between 800 and 1,600 crankshaft revolutions per minute, or be it between 600 and 1,200. They overlook that it calls for judgment to insure that through the gears the engine spends from low to high direct, due recognition must be given to this fact if the best speeds on the road are going to be had and the motor is not going to be unduly punished.

When climbing grades they fail to get the motor speed on second gear into this range of efficiency before shifting into direct, the result being that the motor has to labor on direct and often the change has to be made to second. The driver pays for his ignorance in dollars and cents. Motor sense would be much cheaper.

Motor sense is needed in manipulating the spark control when driving. Talk to forty different drivers and they all have a different theory; ride with them, and so often their theory fails in practice. Every motor is sensitive in this respect. One maker advises to maintain the same spark position on climbing grades, adding the caution to "keep the motor speed up"; another advises slower motor speed with a retarded spark; and another says "keep the spark up until pounding starts and then retard as necessary."

The manipulation of the spark depends on the characteristics of the motor, which the driver must learn to know the better. A small high-speed motor pulling a relatively heavy load must have its motor speed maintained on hills, and if the approach to the ascent will not permit of such, the driver should get back into second.

He is a dwarf who is barely able to get his car to crawl over the crest of the hill on direct and who lurches himself with "it was a fine climb"; and he is a Hercules who can drop to second at the foot, be in high before

reaching the crest and who scales the highest point with his motor roaring well up in its scale of maximum speed efficiency.

But the scope of motor sense is broader: It takes recognition of proper brake application, proper slowing down for traffic and reasonable care of tires as well as car parts. The grand stand driver who rushes up the track, skids the wheels and generally strains the car is possessed of motor sense in inverse proportion to his spectacularities. He lets his motor race idly while tearing up his tires and transmitting a needless strain thru the transmission elements of his chassis. He is apparently void of motor sense. A rational use of the throttle would have been preferable.

Motor sense is needed in three—very much so. There are thousands who have apparently excelled it. They buy tires on a 3000-mile adjustment period, and have them ruined at 2000 miles. The tire expert gives but a second of 30, there has been 30 in the tire sense, tells of under-inflation and over-loads. Instead of 75 pounds inflation pressure, there has been 40; instead of 30, there has been 35. In stead of four adults in the car, there have been seven; instead of smooth country roads, there has been the stony highway. The driver has known only one thing: the capacity of the motor. He has been 15 miles with two people on the city pavement, and 35 miles with five people on the rutted hill. The stony highway has been the same all thru. Sometimes the owner pays, often the tire man. Motor sense is the remedy.

Motor sense is a full brother to "stitch in time." The new car owner should look over every chassis part periodically to see what troubles are exhibiting symptoms, and have a few remedies prescribed. This will disperse loose chassis nuts, loose grease cups, loose spring clips, slack fan belts, vibrating lamp brackets, poor brake adjustment, poorly adjusted other parts. He should consult his mechanic to see if he is giving that way 5 minutes will do more today than \$25 a month hence. Develop motor sense, and not only the erring one but one thing is sure will profit by the results that will be obtained by this development—Motor Age.

## Autos in United States

According to a compilation made by Automobile from official and semi-official data, there were registered in the United States on October 1 almost a million automobiles—to be exact, 990,738. These 990,738 automobiles had a total value of \$1,118,885,600, or an average price of each car of \$1,129, and the aggregate registration fees paid on all these cars totaled \$6,223,459.65. The same data paper covers in New York not long ago, when a purchaser of a 1912 Peerless "40-81" was about to sail for Europe. The big car was hoisted by a derrick and swung over the deck. The fastenings suddenly let go and the machine fell forty feet into the hold. Naturally some repairs were necessary, and as the ship was just about to sail, it looked as tho the owner would be seriously inconvenienced.

Year	Cars built.	No. of cars.	P.C.
1903	12,000	2,000	25.33
1904	15,000	2,500	33.33
1905	22,500	10,000	82.56
1906	30,000	7,500	33.33
1907	38,000	9,000	30.00
1908	50,000	11,000	25.67
1909	108,000	58,000	116.20
1910	173,000	85,000	60.25
1911	209,000	105,000	55.52
1912	240,000	140,000	41.20

He is a dwarf who is barely able to get his car to crawl over the crest of the hill on direct and who lurches himself with "it was a fine climb"; and he is a Hercules who can drop to second at the foot, be in high before

## Big Truck Year

"From general indications this will be a big selling year for motor trucks," says Henry S. Hout, the Alcoa general manager, who has just completed a trip thru the Middle West and Canada.

"There is a general wave of prosperity thruout the country," continues Mr. Hout. "This year's crops are a record maker and the farmers' bins are bulging. The steel mills which have been able to obtain the raw material are working night and day. There have never been as many orders on their books as now. This company itself has never before had as many orders entered for locomotives as it now has. The Interstate Commerce Commission is daily warning the manufacturers against a shortage in freight cars."

"Delivering these goods to the ultimate consumer is going to be a large factor. The motor truck will play an important part in the hauling of these goods."

In glancing over sales reports for the month, it is found that large manufacturers all over the country are preparing themselves for this rush by buying motor trucks.

"Among the largest concerns which have ordered trucks from us and thus protected themselves against the slowness of horse delivery are the Standard Oil Co., Morris & Co., the big packers, the New England Coal and Coke Co., the Old Colony Brewing Co. of Boston, Kohler & Campbell of New York, one of the largest piano manufacturers in the United States, Swift Canadian Company, Harrison Brothers & Co., the well-known paint house, and others."

"It is interesting to note that all of these concerns have used motor trucks for over a year. That they are buying more trucks instead of horses is a sure sign that the business rush is an ever-truck over the superiority of the motor truck over the horse."

## Immense Meteorite Buried Deep in Earth

Coon Butte in Arizona contains a vast crater 400 feet in diameter and 600 feet deep, that is believed to have been formed by the impact of a colossal meteorite. Hundreds of pounds of meteoric iron have been found scattered over the surrounding country, and bits of meteoric material to be seen on the floor and sloping sides of the crater. Prof. Edgar Thomson has estimated that between 2,000,000 and 3,000,000 tons of earth and rock were displaced when the great crater was formed, and that the meteorite must have weighed at least 10,000,000 tons. Prof. Thomson believes that it entered the surface of the earth at an oblique angle, and that new soundings at the south and southwest sides of the crater may reveal the original mass. The discovery would not only settle a much-discussed problem, but would be profitable commercially, because, like every large meteorite, this one probably contains large quantities of iron, nickel, platinum and diamonds.

### PEERLESS-SERVICE.

Just what the "service" given by the maker of a high grade motor car to his customer amounts to was illustrated in New York not long ago, when a purchaser of a 1912 Peerless "40-81" was about to sail for Europe. The big car was hoisted by a derrick and swung over the deck. The fastenings suddenly let go and the machine fell forty feet into the hold. Naturally some repairs were necessary, and as the ship was just about to sail, it looked as tho the owner would be seriously inconvenienced.

But a telephone call to the Peerless Motor Car Company of New York brought to the dock in fifteen minutes another "40-81" which was being used as a demonstrator. So the purchaser took with him an exact duplicate of his car and two weeks later was motoring up the Alps as though nothing had happened.

## Sunday World Garage Directory

**DOMINION AUTOMOBILE CO., Limited**  
COR. BAY AND TEMPERANCE STREETS, TORONTO  
Distributors for Peerless, Stevens-Duryea, Napier and Hudson Automobiles—Peerless and Auto-Car Trucks.

**STEPNEY WHEELS and TIRES**  
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TIRES AND ACCESSORIES OF EVERY DESCRIPTION  
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SUPPLIES AND REPAIRS. PHONE COLL. 1044

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PLEASURE CARS, ACCESSORIES, COMMERCIAL MOTORS

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MAKE A SPECIALTY OF QUICK REPAIRS OF BROKEN CASTINGS, etc.  
Iron, Brass, Bronze, Aluminum, etc., by  
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SEE THE CLINTON TRUCKS  
Automobile Sales Company, Limited,  
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## MOTERING FADS AND FANCIES

Very serviceable and warm are the double-tweed coats, mixture on the outside and plain color on the reverse. They are cut in the long straight model, having the kimono sleeves extending to the hip, but close fitting at the hand. They are finished with big horn buttons.

Among the tea baskets offered for crisp weather use perhaps the drop front willow is most convenient, as it has stowaway compartments for kettles, tea caddy, sugar, lemon and accessories under the china tray and also a space for the alcohol lamp.

As the season advances the single robes with foot cuffs are shown in fur, leather faced cloth and in plain leather. They do not differ materially from those of last season.

Nested drinking cups, four or six in a case, come in several different wares and shapes, and are convenient additions to the luncheon hamper.

Germany has contributed a new wool hood which is of sensible shape, warm and durable. It comes in all the good shades and will be very comfortable in severe weather.

Angora mufflers are prettier than ever this fall. The white ones with the broad stripes at the ends in old blue, willow green and old rose are perhaps the leaders, though many persons prefer the more sombre colorines. They are all finished with deep soft fringes.

An odd hat in African shape has the velvet faced with black velvet, with black velvet band and bow at the side. Under the back view is a striped silk dust cap that protects the hair. A straight scarf veil is worn with it.

In the first showing of fur hats there is an oddity in the shape of a woman's hat. It is of black, honey fur and has a soft rolling brim.

One of the newest fur garments is a full length coat in straight model, finished at the neck with a scarf of moleskin. It is lined with moleskin and has large moleskin buttons.

Soft, round leather riding boots seem to be very popular. They have a flat sole with a work hat, the stiffness being in the centre is an elastic lined bag for the rubber sponge.

Crochet silk scarfs finished at the ends with long tassels are in single face of one shade or double face of two shades. They seem exceedingly popular and are usually dry cleaned or washed to free them from traveling dust.

One of the pretty new box toilet cases has a drop front to hold the toilet case set and at the back an oval swinging mirror. The mirror is quite large enough for all ordinary uses and is a great comfort to the tourist.

There is a new box toilet case for men which resembles a doctor's emergency case. It is completely fitted and has the mirror in the top of the case.

## STRANGE FEATS WITH THE HAIR

**German Woman Has Very Strong Scalp — Withstands Heavy Pull.**

Frau Langer calls herself a hair athlete. She claims to have the strongest hair in the world. At a variety theatre in Berlin she has been recently astonishing the spectators by the extraordinary feats she performs with her hair. Among these is one in which her husband, a man of medium size and weight, slings a hammock between a tree and her hair. The men who know how to use their hair pulled will understand what she is able to do. She has acquired this unusual strength in her hair by many years of constant practice. There is nothing astonishing in the strength of Frau Langer's hair; what is extraordinary is the strength of her scalp. For human scalp materials known, one of the men who has drilled her scalp to resist a pull that would tear the ordinary woman's hair out by the roots.

**The Deadly Parallel.**  
"There's no doubt about my getting in," said the new-arrived shade to St. Peter. "Here's a newspaper clipping of my funeral." The minister delivered at my funeral. "Take this," returned St. Peter, handing the clipping to the recording angel, "and compare it with the past performance."—Lippincott's.

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That Exquisite Bright Lustre Finish—or, the New English Egg Shell Gloss.

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