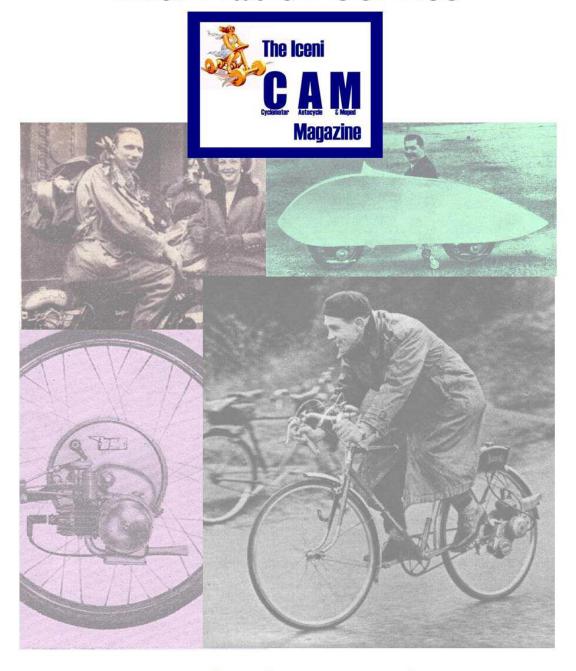
IceniCAM Information Service



www.icenicam.org.uk

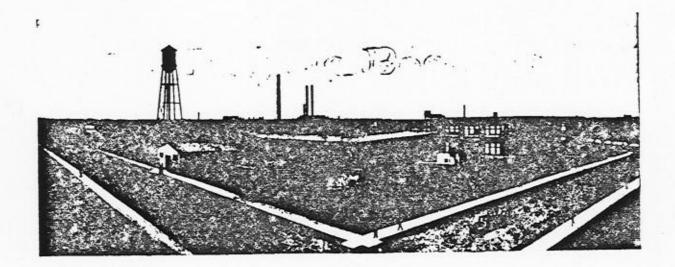
Motor
Wheeling



MILWAUKEE A.O.SMITH CORP.

WISCONSIN





SINCE Smith Motor Wheels were placed on the market somewhat over three years ago, more than 25,000 have been sold and are in use in almost all countries of the world.

It is significant that the first ones built are still giving efficient service.

But the 1918 model with its many improvements was especially designed for quality and efficiency. It is the most compact and most powerful motor of its size in the world. Its performance is truly remarkable.

The A. O. Smith Corporation, Milwaukee, Wis., the largest manufacturers of automobile parts in the world, is the sole manufacturer of the Smith Motor Wheel.

Its mammoth plant (see top of page) is equipped with every modern facility for correct mechanical production under the direction of a large corps of highly trained engineers.

The buildings, covering almost a half million feet of floor space, are of the most up-to-date construction admitting sunlight to all points of the interior and a plentiful supply of pure fresh air.

Over 1800 men are employed (see foot of page).

Every Motor Wheel produced is guaranteed by the A. O. Smith Corporation, whose reputation for meritorious products has become international.



Specifications SMITH MOTOR WHEEL

MOTOR—Specially designed, one cylinder, four cycle, air cooled. 234" bore, 234" stroke, develops 13/2 horse power.

MAGNETO IGNITION-BERLING MAGNETO, high tension, gear driven and ball bearing. The Berling Magneto was selected to insure absolute freedom from ignition trouble.

CARBURETOR-Special automatic float-feed type with throttle control; simple design and self adjusting, guaranteeing against carburetor troubles and insures gasoline economy-100 miles to the gallon.

CYLINDER-Of the finest close grained iron alloyed with steel, so as to give the maximum wear and heat resistance. Ground to within 1/2 of one-thousandth

of an inch fit.

PISTON—Perfectly fitted into cylinder by the "lapping in process," each piston being lapped in separately to insure perfect compression, and provided with two eccentric rings of a non-leak type and perfectly fitted in ring grooves in addition to one groove at top just below rings for regulating oil supply to rings and which also insures against fouling of spark plug through an oversupply of oil.

PISTON PIN-Of nickel steel, hardened and ground, and fitted into piston accurately. Securely fastened into

piston so as to avoid scoring of cylinder.

CRANK CASE-Aluminum, light and strong, cover plates fitted so as to allow of easy access to cam and crank shafts, and enclosing all working parts of motor.

- CRANK SHAFT—Drop forged of special chrome nickel steel, perfectly balanced. Drive pinion is cut integral with crank-shaft, scientifically heat treated and automatically ground, insuring perfect alignment and maximum wearing qualities. Supported by taper roller bearings throughout.
- CAM SHAFT-Drop forged of special chrome nickel steel, perfectly machined, hardened and ground so as to insure perfect alignment and supported by taper roller bearings throughout. This cam she't besides carrying the cams that time the valves, carries driving or traction wheel and an eccentric cam that operates lubricating oil pump for mechanically oiling the entire working parts of the motor.

CONNECTING ROD-Drop forged of chrome nickel steel with bronze bushings at top and bottom, regular automobile and motor cycle construction, insuring highest possible efficiency.

FLY WHEEL-Close grained cast iron, nickel plated and highly polished, distinctly marked for convenient timing of valves and spark, perfectly balanced and securely locked to crank shaft.

SPARK PLUG-"('hampion" one piece, insuring against leakage of compression.

BEARINGS-Crank and cam shafts are mounted on adjustable roller bearings of approved type, adjustable from the outside without disassembling motor. Crank shaft bearings can be adjusted simply by removing fly wheel. Cam shaft bearings can be adjusted by removing traction wheel disc only.

LUBRICATION—By pump and splash system. Pump operated automatically by cam on cam shaft, insuring positive supply to all working parts of motor. Lubricating oil is contained in base of crank case and holds sufficient oil for running 50 to 75 miles. Sight glass gauge is conveniently located in crank case to indicate oil level.

GAS TANK-Fastened on mud guard. Capacity gallon, sufficient for running 50 to 60 miles, fitted with priming gun for priming cylinder during cold weather or when starting cold motor.

CONTROL-Both throttle and compression release are operated by means of two levers fastened to either side of handle bars. Throttle control is fastened to the right side of handle bars and compression release to left side of handle bars, just forward of the handle bar grips and within easy access of the rider's hands.

MUFFLER-Fitted over end of exhaust pipe in such a manner as to perfectly muffle the exhaust without

causing back pressure or loss of power.

INTAKE VALVE—Automatic, of the flat seat type.

Perfectly machined and ground, each one inspected so as to insure that spring tension is exact.

ATTACHING FRAME—Of heavy stamping. Vertical member of scamless heavy tubing. Clamps, nuts, bolts heavily nickeled and highly polished. Designed to fit perfectly to any make of bicycle in 10 minutes.

FINISH-All parts of the Smith Motor Wheel are handsomely finished. The wheel, rim, mud guards and gasoline tank are enameled a rich red, all other parts have a dull or highly polished nickel finish.

TIRE-"FIRESTONE" clincher pneumatic, double tube. Non-skid heavy tread, especially designed for positive traction on all sorts of road. Size, 20 x 2".

WEIGHT-Motor Wheel completely equipped for attaching to bicycle weighs less than 60 pounds, crated

for shipping under 90 pounds.

CRATING-Each Smith Motor Wheel for domestic shipping after first being enclosed in a heavy paper bag, is securely placed in a crate made of the best of material. For export shipping, two motors are packed in closed box, made of stout 1" material in order to insure against damage. Nickeled parts coated with heavy grease to insure against rust in transit.

PRICE-\$80.00 F. O. B. Milwaukee, Wisconsin.

Specifications of SMITH FLYER

- POWER—Smith Motor Wheel, specially designed, one cylinder 23/8" bore, 21/4" stroke, develops 11/2 horse power. Cooled by means of a blower cooling device. (See illustration).
- BODY-Buckboard type, insuring adequate resiliency when riding over rough roads.
- SEATS-Bucket shape seats for two, upholstered in handsome Morroccoline leather.
- STEERING-Regular automobile steering wheel fastened to steering column making for comfort and safety in handling over any kind of road and in traffic.
- WHEEL BASE-62 inches. Overall length with motor attached 98 inches.
- TREAD-30 inches.
- TIRES-Clincher, pneumatic double tube, 20" x 15%".

FINISH-Body polished natural wood. Mud guards, rims, axles, steering column, and braces finished in a rich red.

WHEELS-Tangent wire wheels.

- HUBS-Made from solid bar stock, tempered and ground, large bearing cups and cones sufficient to withstand extra hard service.
- WEIGHT-135 pounds complete with Motor Wheel.
- CRATING—Substantially crated in specially prepared crate. Motor Wheel crated separately.
- CRANKING KNOB-Fastened on disc of motor wheel for starting motor.
- LIFTING LEVER-For lifting motor off ground; for starting and stopping; within easy reach of driver.
- PRICE -- \$145,00 F. O. B. Milwaukee, Wisconsin.

MITH Motor Wheeling means continuous, comfortable, and efficient bicycle riding under all conditions without the usual tiresome pedalling.

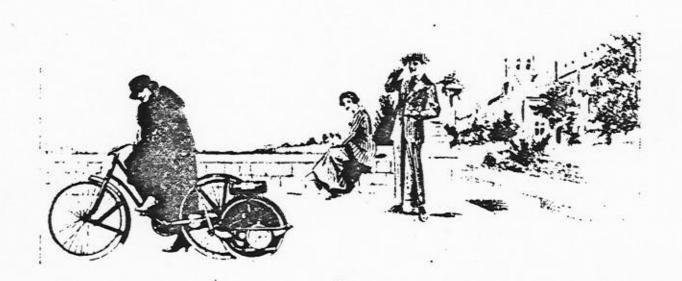
The expense of operation and up-keep is less than that of any to other motor vehicle.

Riding a Smith saves considerable street-car and railroad fare.

With the aid of the Smith Motor Wheel you may travel to untold limits-no points on the globe remain distant.

The dependability of the Smith to carry you safely over the country and to return you to your starting point make it the most desirable mode of conveyance. All roads, almost all spots on the face of the globe, are open to the Smith Motor Wheel. The smallest tow-path accommodates a bicycle and Smith Motor Wheel. The steepest hills appear as trifles. The ever-willing Smith Motor Wheel will take you over most any territory and, what is of greatest importance, will bring you back again promptly and in a tidy manner.

The once popular bicycle is rapidly coming back into it's own. The Smith Motor Wheel will increase it's general use and popularity, because with it your bicycle will become a power machine without, however, destroying the identity of your bike.





Quality

QUALITY in the Smith Motor Wheel is shown, first, by its attractive appearance, its lustrous bright red, and secondly, by its compact, powerful and wonderfully efficient engine.

But this outward appearance, important as it is, tells but a small part of the story.

Time, money, and energy have been lavishly employed to obtain a perfect motor wheel. Every piece of material is of the finest grade. The workmanship is of the highest type. And this giant little motor is the last word in gasoline engine construction and embodies the most mature engineering principles. Each motor is tested in the shop and each completed motor wheel is further subjected to the severest criticism by experts. No Smith Motor Wheel leaves the factory, until it has attained a record of high rating for excellent efficiency and performance.

Comfort

COMFORT in riding any motor-driven vehicle must exclude any position which tends to strain the nerves or which keeps you "on edge," thereby causing exceedingly great fatigue—a most serious mental and nervous disease. At all times your mind and body must be free to enjoy all the surroundings through which you travel.

Smith Motor Wheels permit you to glide along without any worry. There is no suggestion of unpleasant vibration. The Motor Wheel is so attached that no jarring motion is carried to the rider.

7-25

You sit back in your saddle, rest your feet on the pedals, and place your hands lightly on the handle bars. You steer and control the magical flow of power as if by a second sense, while coasting over the high-ways, and "coasting" is the only fitting term to describe the comforts of riding a bicycle propelled

by a Smith Motor Wheel. Coasting with a Smith is the nearest approach to perpetual motion. You coast uphill, as well as down. It is a delightful sensation of being carried anywhere in a care-free, safe, and tidy manner.

1,000 miles-Repair bill 44 cents

Ida Grove, Iowa.

I have ridden a little over one thousand miles with a repair bill of only forty-four cents.

We have taken good care of our machines and have had no engine trouble or tire trouble whatever.

The Motor Wheel is certainly a wonder, as it climbs twenty per cent grades with ease.

RUSSEL E. BOWMAN.



Feel of the Motor

S MITH Motor Wheeling means real bicycle joy, plus motor propulsion. Your first ride gives you the "feel" of the motor, difficult to describe on

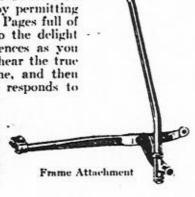
Gas and Oil Economy

Takoma Park, D. C.

I have ridden over 6,000 miles. I get about 100 miles on a gallon of gasoline and more than 100 miles on a pint of oil. Last winter I rode through several inches of snow and just recently I made a 40-mile trip over a country road that was hilly, sandy and stony and where there were several streams to ford. but my motor never missed a stroke. Smith Motor Wheel continues to give me service and satisfaction.

LESLIE W. FERRIS.

paper, and fully realized only by permitting the motor to perform for you. Pages full of description cannot do justice to the delight and pleasure which one experiences as you turn the pedals once or twice, hear the true and regular throb of the engine, and then realize how readily the engine responds to the slightest pressure of your thumb on the control lever. There is no loud report of explosions, but just a quiet, welcome purr, and then you know that your "master-bilt" Smith is doing its duty patiently and faithfully.



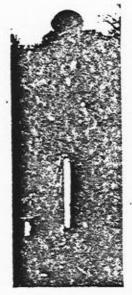
Attachment

IT requires but a few minutes time to attach the Smith Motor Wheel to your bicycle and it may be detached as quickly. Your bicycle is not altered in any way and your Motor Wheel may be used on any bicycle-ladies, gentlemen's, or commercial. The rigid attaching frame is universal. It will fit any standard bicycle. From the cut on this page you will see how easily the frame attaches. Five minute's work with a wrench will do the trick. The Motor Wheel itself fits on the frame attachment with a single heavy pin, and one lock nut secures it in place. The attaching frame clamps to the bicycle at three places. Then you are ready for your first ride.

The detachability of the Smith Motor Wheel is a feature which has found universal approval. If one desires to use the bike alone, then it is a simple thing to release the lock nut and pedal off.







Cleanliness

THE cleanliness of Smith Motor Wheeling has made it popular with all classes. There is no need for special cycling togs, as no oiled parts are exposed. By placing the Smith at the rear of the bicycle, oil and exhaust fumes do not touch you and the heat of the motor in Summer is carried off behind you. An ample mud guard protects the rider from being splashed with mud or water. The fact that your clothes do not become covered with grease and dirt, but stay neat and clean, form one of the exclusive features of Smith Motor Wheeling. It is one of the many important reasons why women, girls, business and professional men have adopted the Smith Motor Wheel. Slow or fast, your Smith lands you in a neat and clean manner at your destination.

Safety

CONSIDERING the purchase of any motor driven machine, the buyer will always look to a guarantee of safety. When considering a Smith in that connection, one must bear in mind two things—the bicycle and the motor wheel. And for obvious reasons, we do not concern ourselves with the bicycle. Now, as to the motor wheel.

The frame attachment illustrated on page 3 shows how rigidly this holds the motor wheel to the bicycle. There can be no gyration, no wiggling, or jarring. The pivot pin holds the motor wheel to the frame attachment and allows it to move up or down with ten inches of play, thus smooth and quiet riding is insured when going over bumps, ruts, and uneven roads. The Smith Motor Wheel operates independently of the bicycle. The load of the bicycle is pushed by the Smith Motor Wheel. Rocks and rough roads may cause the Motor Wheel to move up and down, but there is no jar or rough action transmitted to the bicycle or rider. Safe travel is further guaranteed over slippery and icy roads, or snow-covered or muddy roads, because of the non-skid tire on the Smith Motor Wheel which secures traction under all sorts of conditions. The Smith Motor Wheel has been tested in all climates. It is used on the ice covered trails of Alaska. It plows through the desert sands of Africa. It does its duty faithfully and without a murmur

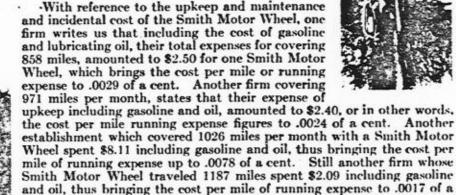




in Australia, as well as Japan, and under all climatic conditions it has given entire satisfaction. It has been universally acknowledged in India, in China, in sunny Italy, in hilly Norway, in Brazil, in Argentine, and in fact all parts of the globe as an ideal means of conveyance. In fact, the Smith Motor Wheel acts as a stabilizer for your bicycle. It gives it better balance, holds it to the road, and insures absolutely safe and easy riding at all times.

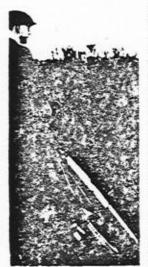
Upkeep and Maintenance

THE cost of upkeep of the Smith Motor Wheel, when considering the extreme amount of service which you obtain from one, is practically insignificant. Many firms and individuals have purchased our product and keep a permanent record of the cost showing the upkeep, wear and tear.

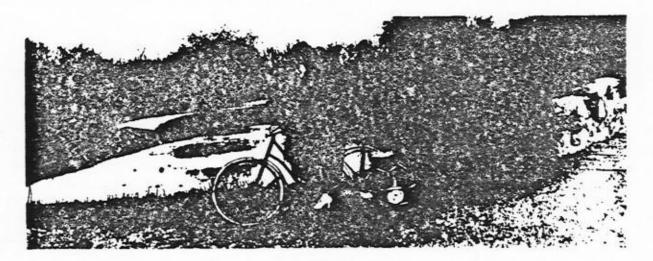


Another very striking instance is herewith related, substantiating our argument of the low cost of upkeep and economy. In this case, the manager of a large shoe concern, states that after three months use he was able to charge off the first cost of the Motor Wheel and bicycle to expense with sufficient reserve fund to buy two more complete outfits. This takes into consideration all expenses of maintenance of the motor

cent, and the record of another firm shows that their Smith Motor Wheel covered 960 miles at a total cost of \$4.75 including gasoline and oil, thereby costing them .0049 of a cent per mile of running expense.









and bicycle during the period used. In this instance repairs to bicycle, cost of oil and gasoline, and all other incidental expenses, amounted to about 30c per day, covering approximately 45 miles daily and involving an average of fifty deliveries.

Oil Consumption

CONSIDERING first the extent of consumption and cost of lubricating oil, one firm writes us that the cost of lubricating oil for one Smith Motor Wheel averaging 45% miles per day, amounted to .0008 of a cent per mile. In another instance where 36 miles per day were covered the cost amounted to .0007 of a cent per mile. In another instance where 37.3 miles were averaged per day the cost was .0008 of a cent per mile. Still another e showed the expense for oil where 39.5 miles per

case showed the expense for oil where 39.5 miles per day were averaged to be .00103 of a cent per mile.

Remarkable Gasoline Economy

THE Smith Motor Wheel is equipped with a gasoline tank mounted on the mud guard which holds ½ gallon of gasoline carrying the rider from 50 to 60 miles on one filling. The very fact that the Smith Motor Wheel makes from 100 to 125 miles on one gallon of gasoline recommends it universally. Some of our riders write us that they have traveled over 130 miles on one gallon of gasoline.

From actual tests we know this information to be correct. We are no asking you to rely on our word, but have ample references to give. Hundreds of our enthusiastic riders inform us of the wonderful economy of gasoline.

Here is just an instance where a firm maintained an actual record of the service which they were obtaining from the Smith used in their "Trouble" department. In 24 days of actual service 858 miles were covered averaging 35.7 miles daily. The cost per day amounted to .00104 of a cent and the operating cost including repairs at the rate of 858 miles amounted to \$2.56 for one month. Therefore the average cost per mile amounted to .0029 or 3½ miles for one cent.

From these various records you will note that the upkeep, including cost of gasoline and oil, of the Smith Motor Wheel is less than ½ of 1c per mile, which is surely a splendid tribute to the ability, usefulness, and economy of our product, and bespeaks volumes for its practicability.

Why not join the judicious and wise folks and buy a Smith Motor Wheel which will take you to your factory, your shop, your office, your home, or any other place to which you desire to go. There certainly is no means of conveyance as economical and as prompt, as well as reliable as the Smith.



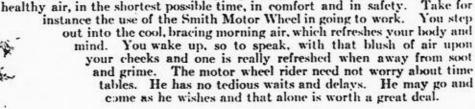
Wear and Tear

A/ ITH ordinary care the Smith Motor Wheel will give you not only one, but many seasons of service. The extremely small number of parts give assurance of relatively little difficulty with reference to the upkeep of the motor. Any piece of machinery will be destroyed through abuse and neglect. We do not ask you to give our motor the same degree of attention as your watch. It was designed for wear and durability. However, from reports by our riders, we gather that it will stand a large amount of punishment. Nevertheless, there are just a few points which every rider must bear in mind. Purchase the highest test and cleanest gasoline possible. High test gasoline insures more power and results in less carbon on the spark plug and in the cylinder. Another important point is the use of proper oil and the quantity to be supplied in the crank case. Any good grade of fairly heavy oil should be used and care must be taken not to pour in a larger quantity than is nec-essary. The safest guide to follow is to keep your supply of oil as near to the top of the gauge glass as possible.



Comparison with Street Cars

COMPARE this with the enormous expense of operating an auto or riding in a street car. With street car service, you must often stand and wait at a transfer corner or probably walk several blocks. Street cars are stuffy and you are compelled to breathe in impure air. Where there is no car service, as out in the country, you must walk or stay at home. Remember the Smith will get you right to your front door in good



Uses of Smith Motor Wheel

THE Smith Motor Wheel has come as a great boon to mankind in all walks of life. It is now used in the city by the man or woman who rides to the factory, the shop, the office, or school. Workingmen, as well as professional men, make use of it.

In the country, where no means of conveyance is to be had, it is used in covering short distances. The farmer, or farmer lass, visits from house to house, or disposes of errands to the country store by the use of the Smith Motor Wheel.





The Great Outdoors - Sports

PEFORE the day draws to a close you lock your desk in the office, jump on a Smith Motor Wheel and in a few minutes you arrive at the golf course, the tennis court, the fishing retreat at your favorite stream, or out in the fields and woods chasing up game.

your trusty bike and the Smith

That's the joy of Smith Motor Wheel-

the great open air.

Motor Wheel.

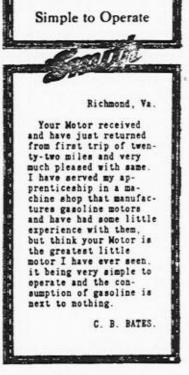
Think of the advantages which the camera enthusiast on a Smith Motor Wheel has over the man who must walk.

Then, too, the Smith will permit you to enjoy in a greater degree your outing to the bathing beach, the plunge in the surf, the delights of canoeing and boating, picnicing and camping.

With your bike and the Smith Motor Wheel you may be ready to enjoy any game such as, baseball, foot-ball, cricket, soccer, lacrosse, no matter how far distant you may live from the grounds.

Thousands of school girls and boys, men and women employed in offices and shops anxiously await holidays, Saturday afternoons and Sundays in order to engage in their favorite sports. They probably would deny themselves this pleasure but for the knowledge that the Smith Motor Wheel will carry them anywhere at all times.

With the aid of the Smith Motor Wheel, you may glide smoothly over the streets of your city, its broad boulevards, out into the green and shady parks where winding roadways will fill you with pleasure as you move swiftly or slowly over a panorama of delightful scenery. The Smith makes them all yours. Yours to enjoy and revisit as frequently and as quickly as you may wish to. The grandest automobile cannot offer you more. In fact there are many foot paths through beautiful scenery where the automobile or the heavy motorcycle cannot penetrate. When you have again learned to appreciate the the great out-doors you will never care to return to any other method of conveyance than



That's the joy that is waiting for you out in

Health and Recreation

THE Smith Motor Wheel has arrived at a practical moment and is fulfilling the mission for overstrained minds and nerves, occa-

sioned by our severe method of present day living.

Most people who recognize the fact that they have either neglected their health or absolutely abused it, are forced to secure recuperation by way of physical exercise, or long continued journeys at health resorts.

In order to avoid a

series of physical break-downs and also to keep the body in excellent condition, the Smith Motor Wheel provides an excellent means to regain broken health, to invigorate and strengthen all who need rest, fresh air and a change of location.

What could be more delightful than an early morning ride out into the country on a clear, sunny day amid the perfume of the shrubs and flowers, riding smoothly along accompanied by the delightfully merry song of the little birds flitting from tree to tree.

When the bicycle craze was on during the early 90's the national health was in excellent shape, due to the fact that the flower of this country was riding in the great out-doors. Then bicycle runs and cross-country runs formed an important chapter in the history of our national recreation.

And today this same form of recreation is being rejuvenated. The Smith Motor Wheel is directly responsible for this.

But the "come-back" of the bicycle will not be a craze or fad this time, it will be based on common sense and folks will return to the use of the bike for sound and substantial reasons.

Bicycle runs and cross-country runs are being held in all parts of the country. Well-organized motor wheel clubs have their regular meetings and long cross-country trips are taken at scheduled intervals. We are rapidly returning to the bicycle habit, but with this distinction—that the tiresome pedalling and over-straining has been left out, and this work is being taken care of by the sturdy, steady work of the Smith Motor. Even as far east as Japan, we find well-organized Smith Motor Wheel clubs, who cover distances of 80 and 100 miles. From Australia we receive similar news and as transportation by train and trolley there is very slow and expensive, almost everyone is riding a bicycle.

Smith Motor Wheel enthusiasts enjoy trips from their home town to the smaller neighboring villages and in that way are able to make frequent visits and stays with friends or relatives. The distances generally do not cover more than 18 or 30 miles, but with the Smith Motor Wheel, a handy and rapid means of conveyance is provided.

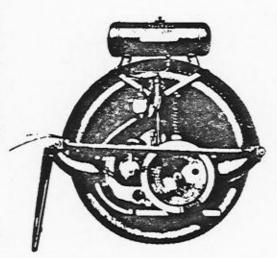
During week ends considerable bicycle riding is now being done and even entire vacation periods are spent by touring on a bi-

cycle propelled by a Smith Motor Wheel. The call of "Back To Nature" has become so strong that particularly the city folks are making a strong effort to return to the simple life. And in all of these cases this can readily and economically be accomplished by the use of the Smith Motor Wheel. Can you imagine anything more delightful than a two weeks' vacation with a bicycle and Smith Motor Wheel away from the busy and strenuous office, shop, factory, or store in the crowded city.

We have many reports describing delightfully, trips which entire parties have enjoyed during the pleasant summer months, while visiting nearby towns containing scenes of historical importance and sights of national interest.

> Useful to Professional and Working People

THAT the Smith Motor Wheel has accumulated an enormously large number of enthusiasts among the professional and working classes, is a plain statement





of a fact. Our riders become so enthusiastic that they constantly keep in touch with us, describing not only the pleasures which they have obtained by riding the Smith Motor Wheel, but the uses to which they have put it. We have on file hundreds of letters in which these good people call attention to the fact that they prefer riding the bicycle to which a Smith Motor Wheel is

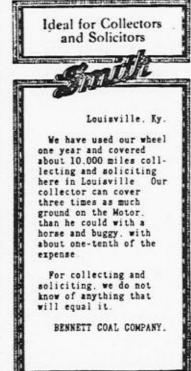
attached to the crowded, stuffy street-cars.

Having a Smith Motor Wheel in going to work you need not leave home an hour earlier, you need not walk a considerable distance to reach a car line, nor are you compelled to wait at a street corner, which sometime consumes from 10 to 30 minutes. With a Smith you avoid being jostled and inconvenienced in street cars. There are no delays. On the other hand you leave the house at a much later time, you sit in a comfortable position, ride the entire way to work without stopping, passing the crowds on the trolley cars and folks waiting at street corners, and the impressive fact is that you arrive at your office or shop in plenty of time. And what is more, you have enjoyed a delightful out-door exercise and have consumed an enormous quantity of fresh air. You enter your office with a bright smile, equipped to do a large day's work in an even and happy frame of mind.

Trolley car riders become chronic grouches and this condition is true with respect to your return at the close of the day. No waiting at crowded corners to board an overfilled car. No arriving late at home to sit down to a cold supper. The Smith Motor Wheel will bring you home in a considerably short space of time by the shortest way possible and after a hard day's work, the refreshing air will enliven your disposition for the enjoyment of all the folks at home. Your pleasant greeting upon entrance will serve as a prelude to a happy evening with the family.

Clerks and factory hands are not the only ones who have taken to the Smith Motor Wheel as a modern and efficient means of conveyance. Physicians, lawyers, ministers, engineers, and many other professional folks are delighted with it.

Many solicitors, collectors of all kinds, agents, and country school-teachers successfully use the Smith Motor Wheel as a part of their daily business. The practical feature which recommends itself to people of this type, is the extreme low cost of operation and upkeep. Solicitors and agents who are required to spend the entire day in the field covering an enormously large territory find the Smith Motor Wheel exactly to their taste and





liking. Without the Smith Motor Wheel they could not cover such a large territory and interview so many prospects. While using the automobile they may be able to cover the same territory and see just as many people, but this would be accomplished at an expense ten times as large. They all agree that there is absolutely no sense in paying ten times as much for an article when

the same results may be accomplished at a lower cost and which guarantees a more profitable business at a minimum of expense.

In a like manner, inspectors of railroads, street-car lines, trouble men of telephone and telegraph systems, meter men of gas companies, state highway inspectors, and many others who are required to follow certain mapped-out districts find Smith Motor Wheel a boon in their daily toil.

We have thousands of school teachers and thousands of rural mail carriers who are without the convenience of railway transportation and to whom the use of an automobile or buggy is entirely out of the question. They have exceedingly long distances to travel and, if no other means were provided, would be compelled to reach their destination on foot, but thanks to the Smith Motor Wheel these thousands of school teachers and mail carriers are able to cover these vast stretches of ground in a comparatively short time and with exceedingly great comfort.

There is hardly a line, either professional or trade, to which the Smith Motor Wheel does not recommend itself.

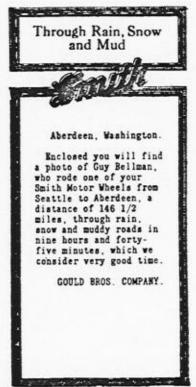
Utility in Business

ALMOST every merchant, business house, and factory is constantly experimenting with the transportation and delivery problem.

The horse and wagon has practically disappeared. We are living in a horseless age, when gasoline has supplanted this mode of delivery and transportation.

There are numerous places of business which require prompt deliveries, but which are not in a position to employ a driver and an automobile. Their business is not so extensive as to

warrant such an enormous out-lay. We have particular reference to the family grocery, the meat store, or butcher shop, to the drug store, shoe repair shop, shoe store, clothing store, and like places of business. Prompt delivery is 90% of their business and in this connection the Smith Motor Wheel has solved the problem which has heretofore given no end of trouble to







thousands of shop owners as enumerated.

The commercial use of the bicycle when propelled by the Smith Motor Wheel renders prompt and efficient service at a cost of upkeep, which when considering the amount of duty performed and service

rendered, makes the price ridiculously low.

We have on record many actual tests which were conducted with a view of determining the exact expense involved in the upkeep and maintenance of both the Smith Motor Wheel and bicycle when put to commercial uses. In one particular instance this is strongly emphasized – that of a shoe store which had hitherto paid enormously large sums of money for drivers, automobiles, and other incidental delivery expenses. We cannot improve on the text of the letter from this concern and therefore quote as follows:

"After the first three months use, averaging 35 to 50 deliveries per day, we have been able to charge off the first cost of the Motor Wheel and bicycle to expense, at the rate of former cost for this same work, and now have in reservation sufficient to buy two more outfits, and this after deducting all

expense for maintenance of the motor and bicycle in use."

This concern arrived at these figures about as follows: Again quoting these gentlemen: "I can now hire almost any boy that rides a bicycle and with a day's instruction, break him into our delivery service. This boy, I can hire for about \$6.00 per week. The cost of oil, gasoline, and repairs for bicycle and motor runs about 50c per day. In other words: \$9.00 per week covers my entire delivery expense now, while formerly my expense was about \$25.00 per week.

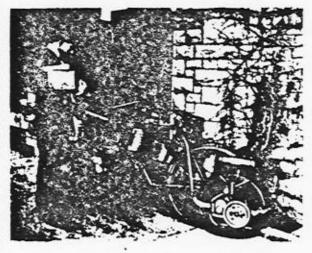
My deliveries are now made more rapidly and the motorized bicycle can be stored away in any old corner. In fact, we are considering equipping all of our stores with this method of delivery." This concern has a chain of stores, numbering probably 250 and upon this favorable showing of the motorized commercial bicycle has decided to do away with all other methods of delivery and substitute the Smith Motor Wheel as the really efficient motive power for delivery

When the first Smith Motor Wheel appeared on the market, thousands of merchants throughout the country had to be convinced that it would efficiently perform this duty and take care of their delivery service adequately. At the present time, further experimenting is needless. You can see the commercial bicycle in almost every city of the country and in addition to that our vast testimonial files are open for your inspection, all of which goes to show that the Smith Motor

Wheel is not only the proper and efficient motive power in these various lines of business, but absolutely the proper means of delivery when considering the cost of conducting such shops and stores. Economy is the watch-word with every business at the present time and the Smith Motor Wheel is fulfilling its mission with credit along that line. To enumerate each and every business line in the country which can profitably make use of the Smith Motor Wheel in connection with the commercial bicycle would require page upon page of this catalog.

Service Efficiency

THERE are numerous business houses who comploy messengers, errand boys, trouble men, repair men, service men, and others who



but they do not offer them the means of constant communication from one farm to the other, or from one village to the other.

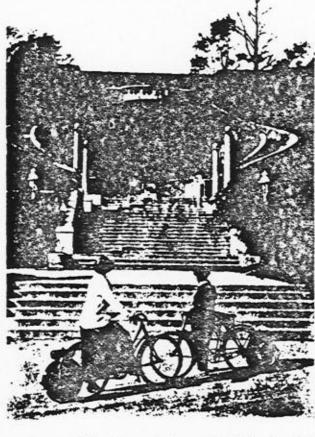
With the use of the Smith Motor Wheel, the collecting of mail and business appointments, and diverse errands may be conveniently and pleasantly attended to.

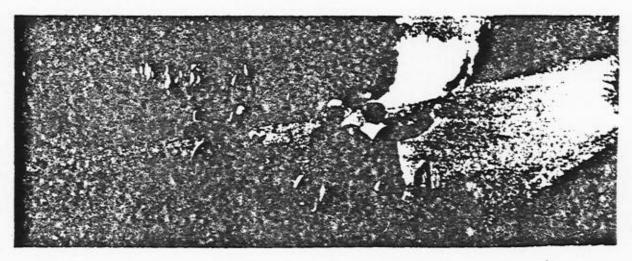
Many agents and salesmen plan weekly or bi-weekly trips into the country for the purpose of establishing business relations along their route with the various farmers. Insurance men of all classes, commission men, merchandizers of various lines of goods, agents for implements and farming machinery attempt to cover this territory and fail when using the horse and wagon or the automobile. Both methods have been proven either inefficient or too expensive. The only adequate solution is the bicycle equipped with the Smith Motor Wheel.

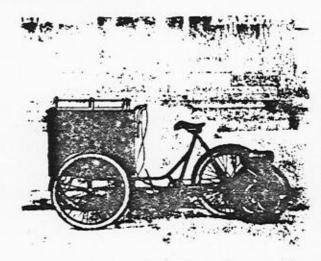
With the use of the Smith Motor Wheel any man can travel far enough in the course of a day from any one center of population without fear of being unable to secure adequate hotel accommodations.

Supposing a salesman leaves Chicago, he may travel through the entire state of Illinois on a route to St. Louis without being more than 20 miles from any large and modern city. He therefore can travel an enormously large area with the assur-

ance on hand that he will always be able to reach a good-sized town before night-fall. In that way he has sufficient time during the day to interview many more people and to transact probably more business than he anticipated. This is an important field, which is as yet only partly developed, and the success is mainly due to the good use to which the Smith Motor Wheel has been put in this direction.







must be dispatched immediately to a far-off scene in order to convey messages or assist in cases of difficulty.

We have in mind the telegraph and telephone messengers. It is absolutely necessary that this enormously large army of messengers must carry on their business with prompt dispatch and, while some are conducting this service by the use of the bicycle, this is not altogether a safe and adequate method to follow. Therefore, in the larger cities these corporations have adopted the use of the Smith Motor Wheel. Their small upkeep and maintenance, exceedingly small amount of wear and tear, and their promptness, insure absolute service efficiency. Greater distances may be traveled in less time without fatiguing the rider who, if he is required

to pedal 20 or 30 miles a day, will eventually grow tired, and what was once a pleasure may become a severe burden, and the ultimate result may be that many a duty will be shirked. The use of the Smith Motor Wheel continues the pleasure of riding a bicycle, does not wear on the rider, and there is no fear of shirking or falling behind in the usual scheme of duties required of the rider.

Garages maintaining service stations upon receiving a telephone message from a client advising of some difficulty may profitably dispatch one of their repair men with a Smith Motor Wheel to the scene in comparatively short time and at a very little expense.

Gas and electric utilities invariably maintain large and expensive trouble departments. Most of the trouble men are required to appear on the scene at almost a moment's notice after a defect has been reported to such a company. It would not be profitable for a concern of this kind to employ an automobile in each instance. The crews are large and the territory covered daily is enormous and the only rapid and economical method for quick service in this line is the motorized bicycle.

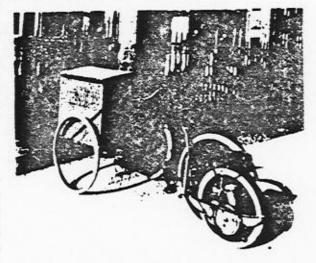
Many business houses maintain their own private messenger service. These men and boys make deliveries of mail and other private matter from one business house to the other. They make several hundred calls a day and particularly where short distances are covered and frequent stops made, it is entirely out of the question to employ the more expensive method of automobile service. In this connection, too, the bicycle equipped with a Smith Motor Wheel is the only economical and efficient means by which such line of business may be conducted.

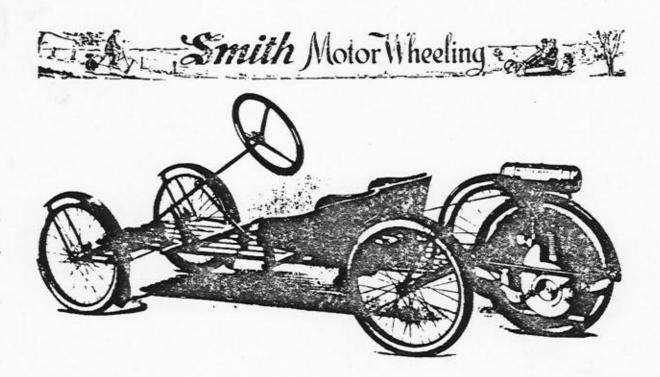
A large number of printing and engraving houses have equipped bicycles with Smith Motor Wheels for use of their messenger boys who carry proofs.

The thousands of news-boys throughout the country in like manner will profitably make use of the bicycle with the Smith Motor Wheel in delivering their newspapers and by the use thereof, increase their territory and the number of their sales.

On the Farm

WHEN we consider the farmer's life, we must take into consideration the enormously large distances between farms. It is true that today the average farmer is prosperous enough to be able to buy at least the smaller and cheaper makes of automobiles,





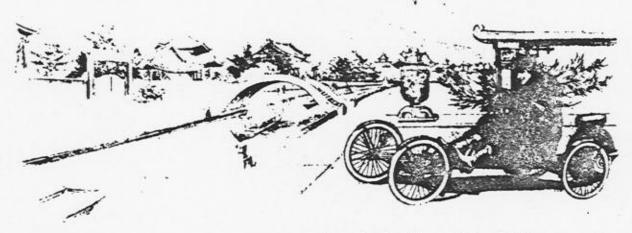
The Smith Flyer

THE Smith Corporation placed this conveyance on the market about a year ago and it's practicability and efficiency immediately created such a large demand, that thousands of them have been shipped to all parts of the globe.

The Smith Flyer consists of a buckboard with four wire wheels equipped with pneumatic rubber tires. Two scats are provided upholstered in Moroccoline leather. This conveyance is steered by means of a wheel, just like that of an automobile. A foot brake is provided in order to facilitate stopping the car. The steering rod, mud guards, rims, axle, and all other metal parts are enameled red to correspond with the Smith Motor Wheel, except the hubs and spokes of the wheels, which are nickelplated.

At the rear center of the buckboard the Smith Motor Wheel is attached by means of a pivot pin. A lifting device is provided for the purpose of taking the Motor Wheel off the ground when the rider wishes to come to a standstill without stopping the engine. When ready to start the driver lowers the lifting device, the Motor Wheel drops to the ground and you immediately start off on your journey.





The throttle lever is attached to the steering wheel spider, and is within easy reach of the driver.

The entire outfit is extremely light in weight and when Motor Wheel is attached weighs only 135 pounds.

This sturdy and attractive vehicle is strongly recommended for use of young folks, although hundreds of older folks are making regular use of the same and enjoying it's efficiency and safety.

The same high-grade materials and workmanship which are characteristic of all Smith products are to be found in the Smith Flyer.

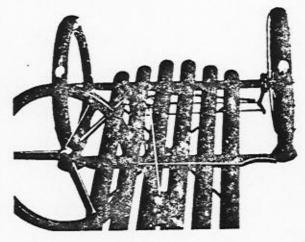
The Blower Device

THE 1918 model Smith Flyer contains a wonderful invention which produces a more efficient and speedier car than ever heretofore.

To withstand the test of actual service, a blower device has been attached to the motor.

The illustration on page 17 shows the blower housing covering the fly wheel, which is cast in the shape of a fan with six blades. When the motor is started these blades on the fly wheel create a strong current of cool air which is shot at those parts of the cylinder and explosion chamber that heat up most readily under excessive speed.





This wonderful improvement makes for greater power since the compression is retained under any speed and guarantees continuous riding without over-heating of motor.

Sold Only as Unit

I N no case will the blower equipped motor wheel be sold separately, but only as a unit with the buckboard. The reason for this is, that when attached to a bicycle the Smith Motor Wheel does not require a special cooling system, as there is no obstruction of air to the engine; whereas when used in connection with the Smith Flyer, the engine does not receive the same amount of free and direct circulation of air by reason of the

obstruction caused by the riders, the seats, and the chassis.

Utility

THE Smith Flyer is being adapted for use as a means of economical and quick delivery and is further used for covering any large amount of territory in a very short space of time for rent collecting, distributing samples, selling goods, and advertising purposes. Many merchants utilize this car in such a manner that in addition to attending to their rapid deliveries, they also receive an exceptionally large amount of free advertising and attract considerable attention throughout their community.

Invalids who previously made use of the cumbersome wheel-chairs have taken to the Smith Flyer on account of it's light weight, safety, ease of operation, and dependability.

Enjoyment and Pleasure

THE Smith Flyer must not be considered a toy. It is a sturdy, strongly built, and highly efficient two-passenger junior vehicle with excellent motor service and combining at a very economical outlay both the means for rapid transportation and the delights of motor sport. The uses to which the Smith Flyer will lend itself are unlimited





Economy of Operation

THE Smith Flyer is designed in such a simple and compact manner that there is small chance of any irregularities or breakdowns.

The upkeep is almost negligible. The great feature which in the past has appealed to the thousands of Smith Flyer enthusiasts is the extreme gasoline economy.

Just imagine riding over 80 miles on one gallon of gasoline, at a rate of between 4 and 25 miles an hour, along some delightful boulevard or over a picturesque country road with a charming young lady for companion. Nowhere is greater pleasure

and practicability to be had for such a small investment. These figures are not our mere opinion nor the result of our tests alone, but are taken from thousands of unsolicited testimonials received from our large army of Smith Flyer enthusiasts in all parts of the world.

The same qualities of durability and dependability which are to be found in the Smith Motor Wheel form the crowning points of the Smith Flyer success.

· Universality

THE Smith Flyer is found among the busy traffic of Broadway, as well as on the compact sand of Palm Beach, throughout the central states of this country, and winding its way over the sloping roads along the Pacific coast. It has gathered a host of friends in Brazil, Argentina, Uruguay, Paraguay, and most all of the South American states. In the balmy climate of Spain and India, in the faroff islands of Java and Borneo, the Society Islands and the Philippines, Tasmania and New Caledonia, the Smith Flyer makes brothers of all races and nationalities, and particularly popular is the Smith Flyer in that delightfully paradise-like country of Japan. It is rapidly gathering friends in Australia, in Korea and China, Cuba, and the Central American states.

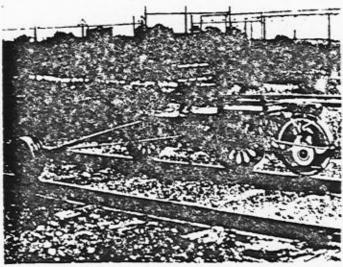
All of which is a splendid tribute to the efficiency and popularity of so low-priced and economical a means of conveyance as the Smith Flyer.

Railroad Speedster

HE back breaking action of pumping a railway speedster is entirely eliminated by the use of the Smith Motor Wheel.

The Smith Motor Wheel has been adopted by leading railroads and rail-way officials throughout the country and it's popularity among railroad folks is becoming just as great as among bicycle riders.

The Smith Motor Wheel employed in this connection is the same type and model as that used in connection with the Smith Flyer. It is equipped with the new blower cooling



device which is described on pages 18-19, guarantees greater efficiency and prevents overheating of the engine. Just as in the use of the Smith Flyer, a similar lifting device is provided when furnished for use with the railway speedster. By means of this lifting device the motor wheel is raised 1½ inches from the tracks. In this position the motor can be cranked (cranking knob is attached to traction wheel) and on the other hand the rider is able to come to a stand-still without stopping his engine.

By reason of its light weight, the Smith Motor Wheel and speedster can be operated as an entire outfit by one person, who without difficulty may lift the entire equipment off or on the track. Twenty miles per hour may be attained, though the speedster is burdened with a lead of two riders

is burdened with a load of two riders and a kit of tools.

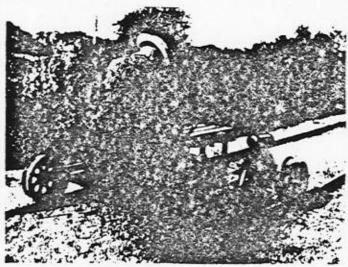
In all kinds of weather and under practically all conditions, the Smith Motor Wheel faithfully does its work. Grades, icy rails, wet rails, and head winds may all be encountered safely and without fear of interruption when the Smith Motor Wheel is attached to the railway speedster.

The Smith Motor Wheel should hold the attention particularly of section hands, trouble men, station agents, and all those whose business permits them to use the speedster. It will not only guarantee a saving of labor, but also time and money.

Besides the great feature of dependability and economy, the other compelling feature is that the Smith Motor Wheel stands alone as the only motor speedster made and manufactured at a moderate price.

Rigid Inspection

EVERY Smith Motor Wheel is manufactured with the same accuracy and extreme care employed in making an automobile engine. Only the very finest grades of materials are used. These are selected by experts to withstand the severest wear and to guarantee longest service.



In it's making, assembling and testing, the Smith Motor Wheel is subjected to the careful scrutiny of numerous inspectors to whom the watchword "Smith Quality" has become a daily creed.

Each part that goes to make the Smith Motor Wheel is tested with the most accurate gauges before assembling. Each assembled unit is carefully inspected for accuracy and thoroughly tested for strength. Each assembled motor (complete) goes through a final inspection to insure correct assembling and true running condition. Each motor is then run under a load and by its own power for a long period on the block, which is known as the block test. After this block test each motor is removed

to the dynamometer room, mounted to a dynamometer and given a complete test for power and efficiency. Each motor passing these tests is then assembled with the wheel, tire and gasoline tank, and undergoes a final test on a specially designed tread mill dynamometer, where the motor must again pass through a power test and where all final adjustments are made by the experts, who pass judgment on the

perfect fitness on every working part for long road service.

Therefore, following this long period of thorough and minute tests, every Smith Motor Wheel which leaves the factory is in perfect running order, ready for immediate use, and completely satisfactory.

Price

THE price of the Smith Motor Wheel complete ready to attach to your bicycle is \$80.00 F. O. B. Milwaukce. The price of the Smith Flyer complete with Smith Motor Wheel is \$145.00 F. O. B. Milwaukce.

There are Smith Motor Wheel dealers in all parts of the country, anyone of whom will gladly show the Smith Motor Wheel, describe it in full detail, demonstrate, and let you ride it. We have selected only the very best and most representative dealers.

Direct Shipments

If there is no one in your locality handling the Smith Motor Wheel, we will gladly ship direct from the factory at the above prices. With your order a \$5.00 deposit fee on the Smith Motor Wheel and a \$10.00 deposit fee on the Smith Flyer is required, balance in each instance is payable C. O. D. by express or sight draft with bill-of-lading by freight. Complete satisfaction has always been secured by this method.

Trial Ride

WE urge you to visit the Smith Motor Wheel dealer in your city. He will be glad to give you a trial ride, obligating you in no way whatever. Follow his few and simple instructions, ride a demonstrator 10 to 20 minutes and you will become acquainted with the Smith Motor Wheel in the best and only manner. Do not neglect this free trial ride. You will experience a thrill of joy, and so great and complete will be your surprise, that your only regret will be at not having secured a Smith Motor Wheel at an earlier date. Take that trial

ride at once-today-right now!

Quality Entails No Expense

BACKSON AND STREET

Hopeland, Penna.

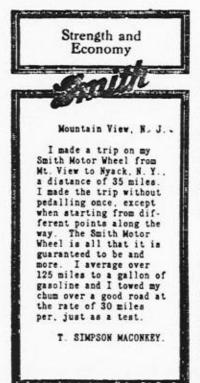
I have one of your Smith Motor Wheels, and must express my appreciation of same. I have run it 895 miles, and have not spent one cent in the way of repairs. The air has not been out of the tire since it was first inflated. I am well pleased with the little machine.

HARRY K. HEHNLY.

Instruction Book

E ACH shipment of the Smith Motor Wheel or Smith Flyer contains one of our explicit and complete instruction booklets. This book explains the method of attaching the Smith Motor Wheel, the preparation necessary before using, starting, stopping and controlling, and the general good care which everyone owes to the engine. Therefore with this instruction book and the Motor Wheel's simplicity, there is no possibility for anyone

failing to fully understand the handling of the Motor Wheel, securing all the enjoyments and service the Motor Wheel affords and knowing it thoroughly at the out-set. Thousands of our purchasers are young ladies and women who are apt to understand little about mechanics and yet in no instance have we had a complaint from these sources.



Service Parts.

THE A. O. Smith Corporation maintains a complete and rapid parts Service Department. We aim to give eight hour service. Immediate attention and conscientious investigation together with a complete report of any trouble constitutes our high-class parts service and we recommend that every owner of a Smith Motor Wheel should keep in touch with our Service Department on any points upon which he is in doubt. They are glad to hear from all our riders and at all times and on all subjects, and make it a special point to please and remedy. Remember our motor is to satisfy all of our riders, as only through the performance of the Smith Motor Wheel are we able to advertise a product of the highest quality. The 1918 parts catalogue is at your command and will be mailed to you for the asking.

Guarantee

THE Smith Motor Wheel is fully guaranteed by the manufacturers. This guarantee covers imperfections in workmanship or materials, and any part not proving satisfactory should be returned to the dealer from whom the wheel was purchased or to the factory-charges prepaid-with a letter explaining fully and giving the motor number, owner's name and address. If upon investigation by the company the part is found defective, a duplicate part will be furnished, free of charge. F. O. B. the factory. The manufacturers' guarantee does not cover accessories, such as magnetos, tires, etc., which are the best that can be obtained from leading manufacturers and should be returned to them.

Compact and Simple

THE Smith Motor Wheel is designed to obtain the smallest power plant possible with the smallest number of parts to guarantee sufficient power to carry the average person in addition to the bicycle. No other word could express the simplicity and small space consumption more adequate than the word compact. Nor are there any complicated parts on the Smith Motor Wheel.

The actual weight of the Smith Motor Wheel is fifty-nine pounds, and when attached to the bicycle may readily be carried into the house and stored in the basement, thus saving garage expense, and making it at all times available without consuming an extraordinarily large amount of space.



