

# THE WORLD OF CYCLING.

## SOMETHING NEW.

### A NOVEL MEANS OF BICYCLE PROPULSION.

A Pennsylvania Genius Invents a Bicycle Motor Which by Gunpowder Explosion Will Carry Man and Machine Any Required Distance.

A gunpowder bicycle is the latest invention. T. M. Freebie, a merchant, of Latrobe, Pa., has just invented a most remarkable motor which with a weight of 8 $\frac{3}{4}$  pounds and a length of 8 inches will when charged with ordinary gunpowder carry a machine and rider 100 miles.

Experiments and practical road tests have demonstrated the entire practicability of the motor, and its general use by the hundreds of thousands of wheelmen throughout the country is only a question of the near future.

A series of explosions as a motive power seems somewhat odd at first thought, and yet when this invention is considered in all its details its method of operation is apparent to all, and its manifest advantage over the present pedal and sprocket system is evident.

#### WHAT IT MEANS.

The adoption of this powder motor by bicycle riders means much to the wheeling world. It means that the steepest hill can be taken with the ease of the smoothest turnpike, and also that the matter of speed is practically limited only by the inclination of the rider. It means also that all the pleasure and excitement of wheeling can be enjoyed without any of its attendant fatigues, and finally, that there is no rattle, rumble, or jar, as with many other motor machines, to disturb the thoughts of conversation of wheelmen or women as they ride through finest shaded roads or country lanes. This motor entirely does away with that bug-bear of wheeling, the sprocket chain, and also the pedal, and at the same time occupies but little more than the same space.

#### IN APPEARANCE.

In appearance the small cylinder of the motor is three inches long and one inch in diameter, at the forward end of which is a box known as the exploding chamber. This is two inches long, one and a half inches high, and one and three-quarter inches wide. From the rear end of the cylinder projects the driving rod. Above the cylinder is the powder magazine, four inches in diameter and two inches deep. It is from this magazine that the explosive is supplied, by means of a feeder, to the exploding chamber below.

The motor is fastened onto an ordinary machine in place of the pedals and sprocket chain. The driving rod which takes the place of the chain is similar in action, although naturally much smaller than the driving rod of an ordinary engine.

The end of this rod, which projects from the cylinder, connects with a crank attached to the eccentric, which in turn is fastened to the axle of the rear wheel of the machine. The forcing outward of the driving rod from the cylinder causes the crank to revolve, and this in turn communicates the motion to the eccentric and wheel, giving motion to the machine.

#### HOW IT WORKS.

The motor is of one-horse power, and the powder magazine has a capacity of five pounds. From the front of the magazine extends downward a chute leading into the exploding chamber.

Within the chute there is a system of valves governed by a rod which follows the frame of the machine up and over the forward wheel to the handle bar. This rod is used to control the speed of the machine and also used as a brake when a gradual stop is desired.

The valves in the feed chute work on what might be called an open and shut principal. There are three of them, an upper, middle and lower one. When one is open the other two are closed. That this may be accomplished the valves are connected by a bar which has at the upper end a cog wheel fitting into a smaller cog which governs the valve opening directly from the magazine into the chute.

The second valve is midway between the others and acts as a governor to both, shutting off the supply when the speed is too rapid and increasing it when more speed is desired.

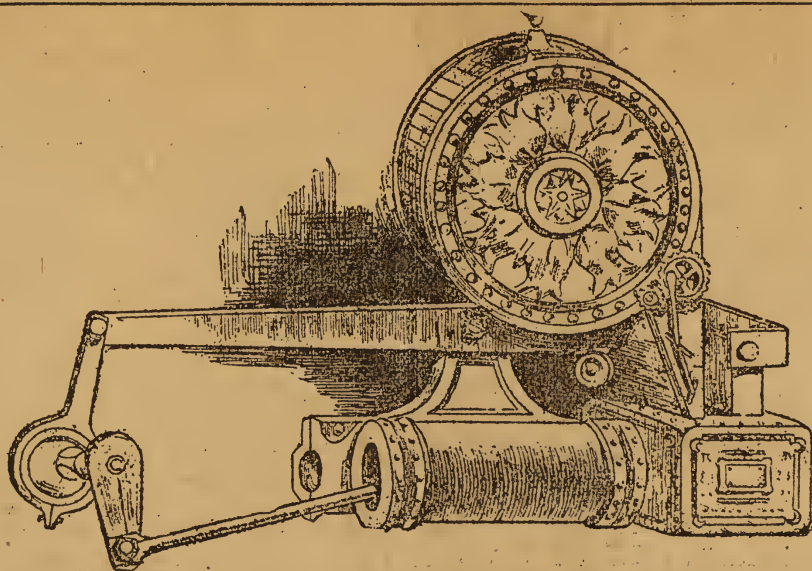
The third or lower valve opens directly into the exploding chamber, and is much heavier than the others, for the reason that it has to withstand the force of concussion and strain caused by the exploding powder.

#### THE EXPLODING CHAMBER

Is the heaviest part of the motor. It is constructed of steel, and in it the powder explodes as it comes from the magazine through the feeder. As the explosion occurs a gaseous smoke is generated, which acts the same as steam in that it operates the pistonhead of the driving rod within the cylinder, one end of which is connected with the exploding chamber.

As the volume of this gaseous smoke is increased the action of the rod is proportionately increased and an increase of speed results.

To avoid any possibility of explosion of the gases generated by the exploding powder there is a valve at the top of the exploding chamber through which the excess of gas is automatically allowed to escape. The speed of the machine to a certain



EXPLODING GUNPOWDER PROJECTOR FOR BICYCLES.

extent regulates the action of the valves in the supply chute. There is a small thumb-screw arrangement in the chute which adjusts the angle of the back of the chute, forcing it nearer the valves or increasing the speed as the rider may wish. A rod working from the rear wheel to the chute opens and closes the valves as the wheel revolves and thus allows the powder to escape from the magazine.

#### THE POWDER

is exploded in the first instance by concussion. There are a series of caps so arranged within the chamber that every pressure to the full extent of the governing rod leading to the handle bars explodes one. When the rider wishes to start the rod is forced down, the valves in the chute are opened and a cap within the chamber is exploded, causing the machine to start. Just the reverse operation causes the entire machinery to stop. The drawing upward of the rod shuts the valve, causing the flow of powder to cease, and as no more gaseous smoke can be generated the machine comes to a gradual stop. To make a sudden stop the ordinary brake is used.

The motor is fastened on to the frame of the machine by a clamp, which is in reality a portion of the cylinder, and when secured fast nothing except the breaking of the machine frame can displace the motor from its position.

So little powder is exploded at a time that there is no smoke and no odor, and the action of the motor is so even that riding on a machine worked by this method of propulsion is much like coasting down a good hill on an ordinary machine. Footrests instead of pedals are placed at the forward part of the machine on either side of the fork, but are much wider than the ordinary rest, so that there is no fatigue resulting from keeping the feet in one position for an extended length of time.

#### MORE MEETS NEEDED

In Order to Enable Riders to Make a Living.

The fact that few of the professional racing men outside of the noted riders were unable to earn much money last season suggests that a reconstruction of the sanction rules of the L. A. W. is needful, with the object of providing more race meets throughout the season. George A. Needham, the ex-captain of the Kings County Wheelmen, who has given the subject considerable attention, says:

The great increase in the number of professional riders during the last season seems to necessitate a radical change in the manner of conducting cycle racing in the future. The League must change its manner of controlling the meets or else give up the attempt to handle the cash prize men. We have an army of fast riders who are anxious to make their living by cycle racing, yet see what few opportunities there are for these professionals to race. Within the metropolitan district alone there are enough professional riders to keep a series of meets going almost throughout the season, but with the limited number of race meets it is impossible for all the present professionals to earn a living at racing. The remedy for this condition of affairs is to provide more race meets, and here the L. A. W. Racing Board stands in the way.

#### THE PHILADELPHIA SHOW.

Everybody Working to Make It a Big Success.

The rooms of the Board of Trade are the scene of great activity these days. For several hours each day Chairman W. M. Brewster and his able assistant secretaries, James Maloney and Charles Curtis, are kept busy getting matters in shape for the big show which is to take place at the Second Regiment Armory, February 20 to 27. Getting such a show in shape is no child's play. It means a tremendous amount of brain work and energy to be expended for several weeks to come. The Board of Trade is making special efforts to make this show a success. They want to make it prove a winner to each exhibitor who takes space in the show, and they are bending all their energies in that direction. No thought is being given towards making any profit on the show for the Board. The work now under way will be entirely for the benefit of the exhibitors. In order to do this the managers expect to have the most beautiful exhibition ever held in this

city. The arrangements of the vast array will be on a scale of elaborateness never before attempted here. The decorations and the electric lighting effects will have the attention of leading experts in that line. To get the public to the show the most liberal advertising that the Board of Trade can afford will be done. In this latter line the Board has the services of W. E. Emerson, who has taken charge of the press work, and has already originated several very attractive ideas for giving the show publicity. It is safe to say that no other show hitherto given here has had the ability and energy of so many shrewd men devoted to its interests.

#### STARBUCK HOME.

The Popular Racing Man Back From His Wedding Trip.

Frank J. Starbuck, the popular racing man who has made his home in this city so long as to be recognized as a Philadelphian, arrived home from his wedding trip last Saturday. He has been absent about one month, most of which time was spent on the ocean and in England. "Star" said that he and his bride went away for a good time and they did nothing else but enjoy themselves. Now that he is back his friends will be glad to learn that Frank intends to locate permanently in this city. He will continue riding the chainless wheel which he made famous in his race with Linton, and which he believes is one of the greatest improvements ever made in wheel building. Mr. Carroll, inventor of this wheel, intends building a factory for making the wheels, and it is likely that Starbuck will be his partner in the concern. Starbuck stated that he will do all his racing in the vicinity of this city, as the kind treatment he has received at the hands of the patrons of racing has greatly endeared him to the cycling public of Philadelphia.

#### BALD'S BOLD DEFI.

Offers to Race Linton or Warburton For \$500 to \$5000.

Buffalo, N. Y., Jan. 18.—Eddie Bald made a proposition Saturday night to Ed Plummer, the manager of the English contingent of cyclists, to race either Tom Linton or Jimmy Warburton a distance of one mile for a stake of \$500 to \$5000. Plummer was taken aback by Bald's bold deft, and made no attempt to make a match. Linton offered to accept the challenge if Bald would allow him to have his own pacemakers and the race to take place in England. Bald agreed to race in England, but insisted that the same pacemakers should act for both men, as the foreign pacemakers are acknowledged to be better than the Americans. Linton would not consent to this, and it is not likely that America's champion will get a chance at the crack foreigners in a match race.

#### A Chicago Woman's Record.

The record of Mrs. Rinehart, of Denver, who covered over 100 centuries and 17,000 miles on the road in 1896, is seconded by that of Mrs. Bunker, a well-known rider attached to the Unique Cycling Club, of Chicago. She is said to have ridden 70 centuries during 1896, and to have recorded a total of 15,000 miles. During the riding season she has averaged two centuries a week, most of them having been ridden over Chicago's favorite course, the Elgin-Aurora. Mrs. Bunker's best time for a century is close to eight hours elapsed time, including all stops.

#### Ashinger Sues Tower.

Charley Ashinger, the six-days racing man, is in Washington suing the promoter of the recent meet there for recompense in building the track. Ashinger superintended the work without a stipulated price, and it is stated was offered his hotel expenses for the week in lieu of cash, which was not forthcoming. Other assistants in the meet also complain that they were left holding the wrong end of the rope when the affair was over, the promoters nailing all the perquisites in sight.

#### What's in a Name?

A local bicycle dealer advertises a wheel called the Blackjack. It's so called because it's a stunner.

#### Worth Remembering.

Don't be too proud of your new bicycle. You know pride goes before a fall.

## L. A. W. PRESIDENCY.

### ANOTHER FACTOR IN THE BATTLE FOR OFFICE.

The L. A. W. Bulletin, of which Mr. Elliott is the Publisher, May be Used as a Most Effective Weapon Against Re-Election Candidacy.

One of the principal arguments used by those opposed to the election of Sterling Elliott to the L. A. W. presidency is in connection with the "L. A. W. Bulletin," which paper, under a contract made two years ago, is published by Mr. Elliott. Under that contract 25 cents was to be paid for each subscription, with the provision that as the list increased the subscription rate was to be increased, until a maximum rate of 50 cents was reached, the number of subscribers necessary to make that rate operative being larger than those who framed the contract thought would ever be reached. The astonishing growth of the organization has so far exceeded the ideas of those who made the contract that the maximum rate is likely to be reached by next summer, and the question now is as to whether the League can pay the additional sum required, for, after deducting the subscription fee and the 35 cents returned to the divisions from each year's dues, there would remain but 15 cents for the general uses of the organization.

Just what the details of the contract are nobody appears to know, for the document is on file in the L. A. W. office, and Secretary Bassett declines to make a copy of it, stating that, as president, Mr. Elliott has instructed him not to do so, though he states that any member may by calling at the Boston office read it. It is known, however, that a stipulation is that the contract may be broken by either party giving notice to the other of such proposed action. Secretary Bassett is quoted as stating some time ago that if the fifty-cent rate of subscription was ever reached the organization would become bankrupt, and if this is so, a modification of it in the near future will undoubtedly be necessary. The chances of Mr. Elliott, as president, insisting upon concessions from Elliott, as publisher, are certainly rather remote, and it is argued that it would be a very unwise act by the League members to place themselves in a position where, in the event of his failing to do so, the organization would stand in danger of bankruptcy.

#### MOTT FOR VICE PRESIDENT.

Maryland's Leading Cyclist to be Used to Strengthen Potter's Ticket.

The Campaign Committee of the New York State division of the L. A. W., conducting the work for the election of I. B. Potter to the League presidency, maintain a discreet silence in relation to the progress of their work in securing pledges of votes for Potter. Their correspondence to various divisions of the League seeking support discloses the fact that Potter's chances of an easy victory are by no means assured. It has developed that Sterling Elliott's work for re-election to the office has secured for him a large number of votes, which will make the fight between the two candidates very close.

While neither candidate has disclosed the make-up of his ticket, the New York contingent is alleged to have decided to put Albert Mott, of Baltimore, up for first vice president, and W. A. Connolly, of Illinois, for second vice president. Mott is one of the best-known men in the L. A. W., having served as chief consul of the Maryland division for years, and has always taken an active part in the transaction of the official business of the League.

Connolly is one of the most active wheelmen in the West. G. D. Locke, the secretary-treasurer of the Illinois division, is a candidate for the office of treasurer of the League, but it is thought that E. S. Hartwell, of Denver, will be on the Potter ticket for that office in order to distribute the office patronage and secure the votes from the different territories. It is expected that both Potter and Elliott will announce the make-up of their tickets in the course of a week.

#### ROTH'S RECORD

Not Likely to Pass Muster Before the Century Road Club.

The claim by E. N. Roth, of Chicago to have ridden 34,380 miles in 340 days, from Jan. 25 to Dec. 1, last season, is unlikely to be accepted by the record committee of the Century Road Club. The claim that Roth had ridden on an average of 101 miles and a fraction every day excited unusual interest among long distance road riders, and many expressed doubts as to the genuineness of the record. It is said that the record committee of the Century Club declare that some of the evidence submitted by Roth to substantiate his claim is very weak. Most of Roth's riding was done in Texas and other distant States. It is alleged that the weather reports from some of the sections where century runs are claimed to have been made show that such rides were impossible.