



## THE TRADE PRODUCTS OF 1900.

**A**N especial interest attaches to the contemporaneous offerings of the cycle and allied industries in that they are the last of the century whose closing quarter not only gave them practical being, but carried them a so a very long way toward fixity in general design and construction. From this viewpoint the latest productions are brought into contrast with their prototypes of the early days, and some sort of conception of future development obtains. But it would hardly require an end-of-the-century line falling athwart the path a little farther on to show the present year a buffer season between the old order of things in the cycling world-sport and trade alike—and the new. Nineteen hundred will round out well one series, or period of mechanical history of the wheel, that another one may begin with 1901. The calendar simply furnishes a ready and familiar means for locating and naming the landmarks which the progress of the industry has itself established.

The broad distinction I have here taken the liberty of drawing between the conditions of this year and next is more reasonable than may at first appear. The bicycle for long thrived on a narrow and unjust conception of its present and ultimate place. It was oftener regarded as a clever machine making its way alone into popular favor than as having but a single part in a great and widespread movement in transportation which it was, in point of time at least, privileged to lead. This fact has been in the serious consideration of the leaders in the trade for three or four years. Elsewhere it has had scant respect. But all men now know that the automobile, the motor-driven cycle and tricycle—which we already have—together with any new contributions which the future may make to the list, are all to share the public's patronage. They are to rationally supplement each other in ministering to recreative and special needs. The balance between them will be subject to disturbance so long as evolution is present in any one of them; and the spirit of change must necessarily dominate another full decade.

## RETROGRESSION A PHANTASY.

Just now the bicycle is holding its own with security, and making very likely all reasonably-expected gains. The idea to the contrary arises principally from forgetfulness of the fact that the newer accessories to pleasure travel are coming rapidly to the fore, enveloping but not swallowing up the older ones, while everyday estimate, as fickle in subtracting from the value of the one as it is in adding to the importance of the other, moulds an undue share of opinion. Only those comparisons made at corresponding stages of industry are reliable.

Again, the late overdoing, best known by its newspaper term, the "craze" of wheeling, has gradually passed under a merited eclipse. Now and then a sign of revival appears above the horizon, but it is seldom more than the brilliant flicker of an expiring flame. Meanwhile the word "craze" is already being applied to automobilism. Close familiarity with the limitations as well as with the possibilities of the cycle, and the lapse of marked annual changes in types and models, have wrought this important result. By like means have freakish ideas in machines and their equipments been deprived of support and brushed aside in the interests of common-sense manufacture, and intelligent purchase and use.

## OLD-TIME PATTERN SUMMARIZED.

The lines of chain-driven machines are now so near uniformity that a full list of changes in the current models, taken even at closest range, would be still a short one, without points of special surprise. The individualities of the best-known makes have been even more deftly and deeply fixed, and carried as a rule to medium-priced and cheaper as well as to the higher grades. This is as evident in the productions of the confederated factories as in those of independent manufacture, assuring not only the survival of familiar and favorite names, but also a permanent wide choice to the buyer. It is still astonishing what range of selection fixed general types allow, options not only of frame-heights, weights, gears, tires and saddles, but also of colors, fork-crown and sprocket designs, treads, handle-bar fastenings, crank-hangers, and other minor equipments. If the cyclist of to-day cannot suit not only his needs but also his reasonable fancies to exactness, the fault lies in his inability to discover and catalogue what he desires.

The minimum road weights of last year's chain types have been a trifle shaded, giving a number of nineteen and twenty pound machines built for all-around service. The racer has been practically banished from regular manufacture, though still built to order on a limited scale. Popular styles of tubing are, as heretofore, the D-shaped, circular and oval, with no decided gains of any one over another. Main-frame diameters vary from one to one and a quarter inches, with one and an eighth in the lead. Joining of the upper rear forks to form the seat-post lug are all but universal, though brought about in varied ways. There is a reaction from both the extra-long wheel bases and the extremely short heads of 1898-9. Crank-hanger drops are somewhat less pronounced, eliminating in part the built-to-the-ground appearance. Fork-crowns continue at widest variance, this feature being one of the greatest opportunities for original design. Chain widths display a narrowing to an average of three-sixteenths for singles, and slightly wider and heavier for tandems. One-piece and two-piece hangers strive for supremacy as of old, with negative result. Gears are of range as wide as ever, while crank-lengths, though offering some choice to the rider, average 7 inches. The matter of width of tread for roadsters, so much debated in the past, has apparently settled itself, at between four and five inches, thereby joining ample strength with trim effect. Models for

ladies' use follow in some degree the changes evident in men's machines, but they are oftener near duplicates of the 1899 patterns. New departures in tandems are discouraged by the constantly lessening demand for combination mounts.

#### PROGRESS OF THE CHAINLESS.

In OUTING for March, 1899, description and illustrations were given of the types then leading the chainless wing of the cycle industry in the United States, as follows: (1) The bevel, (2) the Sager roller, and (3) the spinroller gears. Since that time each of these has gained in extent of use, and further established its claim to public confidence. Several additional inventions have been developed, without, however, altering the relative positions of the others.

The first chainless bicycle of thoroughly modern construction—the bevel gear—was placed on exhibition in New York City on October 20, 1897, but no sales of any account were made until the opening of the following season. 1898 was an experimental year pure and simple, the entire product being not only small, but controlled a so by the makers by means of very high list prices inflexibly maintained. The caution of the trade acted as a salutary brake upon the enthusiasm of most riders, and dominated the situation until the 1899 models were nearing the market. Then, every claim for them having been more than realized, a show of confidence on the part of a number of manufacturers in the form of a generously multiplied product, coupled with an abrupt decline in list from \$125 to \$75 and \$65, served to challenge the interest of the individual rider. The practicability of the chainless for road work was at this time abundantly proven, but its speed qualities were still in debate. Then followed a series of track tests, whose result was to win most decisively from the old type all important short-distance world's records. The chainless had moved from near the foot the head of the column within a twelve-month.

The reason for this rapid advancement is not difficult now to see. It was nothing against the novel gears that their ability to compete with the chain was at first doubted. To prove the point it was only necessary to fit the device—already brought to laboratory and workshop fitness—to forms elsewhere prepared, and give it adequate trial on the road and track. The chainless was thus enabled to span at a bound that long and expensive evolution through which the older construction had passed. The models of 1900 are those of 1898-9, with but detailed improvements. The general lines follow, of course, those of the chain-driven mate. Weights have been materially reduced by means of careful refinements in manufacture until twenty-five pounds is very near the average. Cutting down below this would probably attack the strength and vitality of a road machine, and is hardly to be attempted in the near future. Experience proves conclusively that a mount of this heft is more satisfactory all around than a lighter one.

For this, the third season, the chainless incorporates advanced methods of gear-cutting and assembling. Those who attended the cycle-automobile show at Madison Square Gar-

den, Borough of Manhattan, in January last, will remember the gear-cutting machine in the exhibit of the American Bicycle Company, Pope Sales' Department. This clever apparatus has been built from the ground up for the special purpose to which it is applied, and turns out its product in many respects superior to the best hand labor. Assembling of the parts is done more by the gear-maker than by the wheel-maker, the latter contributing the rest of the machine and passing it on through established channels to the purchaser. With reasonable care few chainless gears get out of alignment, but when such is the case it is frequently difficult and sometimes impossible to restore the original and good condition without costly replacements at the factory. Thus is a premium placed upon intelligent usage.

The 1900 bevel type exhibits both side and centre axle-gearing, while the Sager offers a choice between the former double-tube styles and the driving-rod enclosed in a single stout stay. The nature of the spinroller construction confines its operation to the side and back contact.

The United States easily leads the world in chainless manufacture. European running-gears are heavier, and less accurately formed and adjusted than those of this country. Until recently too, they have been entirely hand-made, but now our special means for the machining of these parts are being set up in a number of the more progressive English and Continental factories.

#### COASTER AND BRAKE DEVICES.

The real novelties of the year centre about the various equipments designed to add to the comfort of cycling, or else to economize propelling power. Chief among these accessories are several efficient devices of a new order of invention, by means of which the mechanical connection between the crank-shaft and running-gear is severed and picked up again at will. In the application of this principle to either chain-driven or chainless machines, the medals are kept in motion only when some driving force is sustained. At other times, they are at rest, while the cycle expends the momentum it has acquired, unless sooner checked. Usually, but not universally an added attachment is fitted, controlling a brake, operated by the simple act of back-pedaling, gripping hub or rims, or bearing upon the tire in such a manner as to quickly stop in case of emergency.

The trade name for this combination equipment has come to be "coaster brake," and as such it is listed in most of the 1900 catalogues. It is a sensible addition, especially to the tourist's mount, tending to promote the practice of coasting—a rare joy and keen exhilaration to one who knows it aright—and not necessarily subject to danger. The expert coaster, touring through a rolling country, who takes advantage of his opportunities, will very likely cover a quarter of his daily distance—perhaps more—with limbs at rest, meanwhile gaining strength for the contrary grades. It is the unvaried effort which tires most; and while one comes to a full halt to ease himself, perhaps a dozen will embrace the opportunity to gain much the same result without a dismount by

means of the coaster brake. Coasting and "scorching" do not thrive in the same zone of cycling, and the decline of the latter is contemporaneous with the advance in favor of the former. Four or five years ago various two-speed attachments of merit, embracing this feature also, were brought out, but none met even a shadow of commercial success. That was the era of excessive pace, of hard pedaling up-grades and down-grades alike. A more sober day has come—and to stay.

Curiously enough, the two-speed idea in connection with which the coaster brake was first developed has apparently been forgotten. But there is no good reason why they should not again be joined to good purpose, and 1901 will doubtless witness the fact.

The pioneer of coaster brakes now prominently on the market is the Morrow, the enormous demand for which has led its makers, the Eclipse Bicycle Co., of Elmira, N. Y., to entirely displace a well-known wheel product in its favor. The principle is simple—a friction roller clutch, with guarding blocks, kept in position by hidden springs until needed, and then applied by back-pedaling. The former construction included a spoon-brake, bearing against the rear tire, but that feature is now eliminated and the power applied only at the hub. The latter is, of course, subject to some strain, but it is built with that idea in view, and, reasonably used, lasts as long, as any other working part of the machine. The added weight from the fitting of this device is so slight as to be practically unnoticeable, while the increased contribution to comfort is very considerable.

The Nester Coaster & Brake Co., of Buffalo, N. Y., offer in the Nester a device exhibiting some new ideas. Two sets of rollers are used, one to drive and another to operate the brake. Back-pedaling checks the progress of the bicycle by drawing against a large disk on the hub two V-shaped pieces of metal. After the brake is set—either lightly or firmly—whatever force is exerted up on the pedals is transmitted directly to the hub disk, assuring positive control of the mechanism at all times. Release is automatic, taking effect immediately upon reversal of crank-shaft motion, without an ungenial sensation of disconnecting and engaging parts.

While the operations of all coaster brakes are in general principle alike, the back-pedaling impulse necessary to the action of the New Departure, of which the New Departure Bell Co., of Bristol, Conn., are the manufacturers, and Messrs. John H. Graham & Co., of New York city, the selling agents, is intended to be but slight. The liability of the once-set brake to carry cranks and pedals into continued reversed motion is guarded against, insomuch that a wheel thus fitted may be trundled either forward or backward with crank-shaft at rest. The merit of this arrangement is at once apparent to the cyclist whose shins have been hit by moving pedals while in the act of carrying a machine up a flight of stairs or walking it over an unridable stretch of road.

#### WHEEL EQUIPMENTS.

Out of the old-time abundance of cycle accessories only the freakish are missing. This shows not only that we have come to accept or

reject on the score of utility, but also that no thoroughly good article in the way of wheel fitting is allowed to lack for generous support. We may say that here and there are standards—good enough for us—and yet the favor we collectively bestow upon their neighbors keeps the latter a vital part of the industry. In the search after a higher order of comfort in riding, the productions of the immediate past have been hardly more thoroughly reviewed than those of former years. The matter of spring saddles of ample proportions and a certain sort of luxurious ease is an illustration in point. These were once quite popular, then so thoroughly discarded as to make a glimpse of one difficult. Now, however, they are coming into more use, and the changed conditions of the times are giving a more serious place to them.

Thirty-inch wheels will be remembered chiefly as an experiment of 1899. To a certain extent this larger diameter is advantageous, but not sufficiently so to recompense for the necessity, in case of their use, for entirely new sets and sizes of both equipments and repairing facilities. This year they are practically absent from the makers' catalogues. Some built-to-order racing machines are going to the other extreme and showing one-inch tires fitted to 26-inch wheels for track speeding.

Tires remain outwardly as before, with slight alterations in some details of manufacture. Of the standard types the G. & J. (the G. & J. Tire Company, Indianapolis, Ind.,) attracts especial attention by the thorough manner in which its old-time virtues—durability and ease of repair—are brought down to date and carried to the eves and ears of riders. This style of tire has undergone no radical changes in structure in all the years it has been on the market, being now as then a double-tube clincher detachable, taken from or replaced on the rim in a minute's time.

Oil, acetylene as, and electric cycle lamps are all in very wide use. The first-named has been for some time perfected, while the last-named gives excellent service within the limits of its capacity. The acetylene type shows the most progress of the three, but its advance has been in confidence of users and in popularity rather than in altered construction.

Saddles are offered in sufficient variety to meet all requirements, although the gross number of models has suffered some decrease. By means of improved locking arrangements the adjustable handle-bar has become as fixed in position as the one-piece kind, and has so gained a long lead. Unless an expert you would be bothered to tell the difference between the pedals of 1899 and those of 1900, were they placed side by side.

#### WIDE RANGE IN PRICES.

The selling lists of 1900 bicycles show few departures from 1899. Last year's figures are generally conceded to have been fair to the reasonable expectations of buyers; and it is well known that the close economies which now characterize the industry place the means for cycling in the possession of the public, at meagre advances over net costs of production and sale. The few changes made are, of course, downward, the additions to the \$25 and \$35 classes being numerous. Extremes range

from \$15 for unguaranteed juveniles to \$75 for highest grade chainless machines, within which lines every purchasing capacity should be suited. Chainless makes are held mainly at \$75, \$65 and \$60, with a top price of \$50 for regular chain models. Such consolidations of interests as have taken place in the cycle and allied trades during the past year have had little or no effect upon the matter of prices either way. Nor is such result to be expected in the future.

NOTEWORTHY INDIVIDUAL PRODUCTS—THE  
AMERICAN BICYCLE COMPANY.

For the first time in the history of cycling, we have a portion of the trade's product offered by confederated factories. Early in 1899 The American Bicycle Company was organized by the alliance of about forty manufacturers, but working control was not assumed until preparations for the present season began to be made. Among the net results have been, principally, these: (1) coöperation of manufacturing and selling forces in the section of the trade immediately concerned; (2) increasing totals of production contemporaneous with the elimination of some parallel medium grade and cheaper lines; (3) a graduated scale of list prices, uniform in the aforesaid section of the trade; (4) an aggressive movement for export trade inaugurated.

It was at first thought by some, especially veterans of the sport and trade, that the outputs of so many factories under one centralized management would be at the sacrifice of many familiar and favorite names, if not of whole lines of accustomed models. Considering that right here the strongest single asset of the new company is centred, it is only reasonable that the opposite should have proven decisively the case. We still have the Columbias and Hartfords, the Sterlings and Crescents, Road Kings and Road Queens, Monarchs and Waverleys, the Stearns, Syracuse and Barnes, Tribunes, Ramblers and Clippers, the Spalding, Imperial and Crawford, the Clevelands, and so following to the end of the list. The former individualities have been faithfully preserved; the only apparent difference is the grouping of certain lines in division sales departments. The Columbias, Hartfords and Stormers are, by way of illustration, handled by the Pope Sales' Department, Hartford; the Tribune, Featherstone and Fays, by the Featherstone Sales' Department, Chicago and New York; the Ramblers, Clippers and Ideals, by the Gormully & Jeffer Sales' Department, Chicago; the Monarch, Waverley and Phoenix, by the Monarch Sales' Department, Chicago and New York; the Spalding, Crawford, Imperial and Nyack, by the Spalding Sales' Department, New York, and the Ames & Frost Sales' Department, Chicago; the Stearns, Syracuse and Barnes, by the Stearns Sales' Department, Syracuse, N. Y.; the Crescent and Sterling, by the Western Wheel Works Sales' Department, Chicago and New York; the Cleveland and Westfield, by the Lozier Sales' Department, Cleveland, O.

Nor is trade progress at all hindered. On the other hand, a close examination of the different lines will show a full share of the entire trade's advancement in design and construction. The Columbia chainless models, as a case

in point, are considerably lightened. In the running mechanism the sleeve for carrying the forty-tooth driving gear has been enlarged and modified so that the gear itself, with the ball race, is changed to a form better adapted for uniform tempering. The axis of the sleeve has been made accurately perpendicular to the plane of the disk which receives the gear, assuring mechanical uniformity in action. The high-grade chain models of all lines have been retained, void of surprising features because of the near-to-permanence of established types. Chainless models on individual lines are offered also in the Stearns, Monarch, Spalding, Western Wheel Works, and other factory groups. Prices of all models are on practically the same level as those of the rest of the trade, i. e., \$75, \$65 and \$60 for the chainless, and from \$50 downward for the chain-driven machines.

THE AMERICAN SADDLE COMPANY.

Six long and favorably known makes of cycle saddles comprise the 1900 output of the American Saddle Company, of Elyria: Ohio, as follows: The Garford, Hunt, Brown, Wheeler, P. & F., and Gilliam. In the entire list there are no two models alike, and the choice is wide enough to enable the meeting of every requirement, ranging in price and quality from the cheapest compatible with good service to the highest and best grades. Experimental designs have been entirely abandoned, while time-proven lines have been uniformly retained. A modification is noted in the new Garford cavalry saddle, which is materially increased in size, and fitted with slightly raised pads of best wool felt, on a special basis of wood. A plain bid for the maximum of ease and comfort is made with the Brown coil-spring saddle, which is built up on a distinctive plan and covered with oak-tanned bridle leather. Pads of interlaced leather are features of the Wheeler Extra. The P. & F., and the Gilliam are cheaper, but thoroughly good types.

Tool-bag manufacture has come to be an important part of the great enterprise of the American Saddle Company. These accessories are made in every acceptable shape and size, and finished in black, brown, maroon, tan, "grain" and "split" leather as desired.

THE BADGER BRASS MANUFACTURING COMPANY.

The "Solar" was one of the pioneers in the use of acetylene gas for cycle lamps, and a complete collection of the models developed by this company would accurately index the gradual progress in this direction. The latest models are like those already well known, having the same large jeweled side-lights which have characterized this make. The new patterns are lighter, however, than the old, and fitted with a new straight-sided carbide cup, with a false bottom to add to the ease of cleaning. The ground lens is secured by means of a patented snap catch which takes the place of the wire spring or other contrivance for the same purpose. The bracket is made entirely from sheet metal.

A larger lamp, but on the same general principles, is offered also for automobiles.

TWENTIETH CENTURY MANUFACTURING COMPANY.

Oil and gas lamps continue to be the product of the Twentieth Century Manufacturing Com-

pany, 17 Warren street, New York. The former is still in undiminished demand throughout the country, though it has lost in the larger cities. For 1900 this type is unchanged from 1899.

As the evolution of the gas lamp is not yet complete, changes in its styles are naturally expected. The latest models of the Twentieth Century Company are lighter in weight and handsomer in appearance than before, while simplicity of construction and operation is emphasized. A straight valve tube admits the water at the top, and releases it at the bottom of the carbide. After the valve is closed there can be no accumulation of water, and no amount of jarring will produce a bothersome irregularity of the flame. Absorption of the water by the carbide goes on steadily with no occasional breaking forth of the flame.

A combination bracket is also offered, by means of which the lamp may be fastened to the fork, head, handle-bar, or any other place desired. In all, eight different styles of brackets, including those for carriages, are made.

#### THE VEEDER MANUFACTURING COMPANY.

There are perhaps one-third as many cyclometer types on the market to-day as there were two and three years ago. Among the survivors is one which, without showing radical changes from past seasons, exhibits an unusual gain in popularity and extent of use. This is the Veeder, manufactured by the Veeder Manufacturing Company, of Hartford, Conn., and sold very widely by the retail trade throughout the country, as well as by the manufacturers. The features of this handy little device are well known. The smaller size, retailing at \$1, registers 10,000 miles and repeats. It is water and dust proof, without springs or unnecessarily delicate parts. The larger size, the "trip cyclometer," retailing at \$1.50, has two indicating faces, one registering up to 10,000 miles and repeating, the other reversible to zero at will, for the measurement of the distance covered in any narticular ride.

The watch-shaped cyclometers changed their form more or less when the Veeder "barrel" cyclometer appeared, but the mechanical difficulties encountered in avoiding the Veeder protected form of construction have gradually banished them from the market.

#### MIAMI CYCLE & MANUFACTURING COMPANY.

The end-of-the-century racycle family comprise the following: Model 50, "Pacemaker," 46-inch wheel base, taper head, and large sprocket, at \$60; model 51, track racer, 26-inch front wheel, weight twenty-two pounds, at \$55; model 52, men's roadster, and model 53, women's roadster, both at \$50; model 54, medium-priced roadster, at \$35; model 55, racycle chainless (Bullis gear), and model 56, chainless for women, \$65.

The Miami Cycle and Manufacturing Company have always given especial attention to the crank-hanger mechanism of their entire product. The racycle was the original narrow-tread machine, and every year has witnessed some new departure at that vital section of the wheel. The 1900 hanger not only possesses

the distinctive characteristic of wide-spread ball races, but has some fifteen less parts than formerly. There are no sprocket bolts, nuts, washers or bushings, and the hanger is practically oil-retaining. Before a racycle leaves the factory, the bearing is charged with oil, which is prevented from escaping by the "magazine oiler." The company warrants one charge of oil to carry a wheel two seasons without attention.

#### PLUME & ATWOOD MANUFACTURING COMPANY.

The Banner gas lamp, the product of the Plume & Atwood Manufacturing Company, New York and Chicago, is equipped with a new bracket which, after being adjusted to the desired angle, will allow the lamp to be removed and replaced any number of times without alteration of that angle. An original and clever arrangement employs the action of the gas to automatically regulate the water supply, the valve turning the water full on, partially on or off, as is required to maintain a balanced relation necessary to good lighting. The Banner is fully guaranteed, designed in every detail for regularity of action and convenience, and is sold on its merits.

#### THE SEAL LOCK COMPANY.

The O. K. gas lamp is somewhat larger than heretofore in order that it may carry more carbide and generate a greater volume of gas. A new reversible bracket is also fitted, allowing a total range in elevation of four inches without altering the parts which fasten it to the head of the bicycle. The lamp complete measures only 4½ x 4½ and weighs eighteen ounces. It has a lava tip (or flat flame) burner, double convex ground-glass lens, and by an ingenious but simple arrangement, clogging up of the burner is rendered well-nigh impossible. The light is strong, clear, steady, and reliable under all reasonable conditions of use. The carbide is kept in a cotton bag, and can be quickly handled.

#### THE FOWLER CYCLE WORKS.

Fowler bicycles have always enjoyed an excellent reputation with both the trade and the riders, and distinctive features have never been absent from the line. The first-noted characteristic is, of course, the truss frame, joining the seat-pillar to the crank-shaft in a most solid and substantial manner. It was on machines of this construction that Mr. and Mrs. Duncan McIlrath made their famous tour around the world for the Chicago *Inter-Ocean*. Mr. Frank T. Fowler is now, as in 1893-4, the managing head of the organization bearing his name.

The list of the 1900 styles and prices is an interesting one. Model S, in patterns for men and women, with straight seat-post pillar, sells at \$25. Model V of the same quality of material and workmanship as the preceding, with truss frame and a wider range of equipment, costs \$30. The Fowler "Sunlight," a regular truss-frame roadster, lists at \$40, and the "Bantam" truss-frame light roadster, at \$45. The "King B" racer with truss frame sells for \$60, as does also the chainless machine with either straight or truss frame.

## THE OTTO COASTER BRAKE.

Extreme lightness of added equipment combines with clever effectiveness in the Otto coaster brake, offered for 1900 by the Stockton Mfg. Company, of Newark, N. J. Almost entirely shielded from sight and weighing only five ounces, this small device fitted to the tourist's mount may reduce the number of pedal strokes from 25 per cent. to 40 per cent., depending upon the nature of the roadways traversed. There is much opportunity for additional sight-seeing, as well as a vast amount of comfort and ease in the consequent saving of energy; and you will get there almost as quick as the fellow who pedals down-hill as well as up-hill. The Otto is for sprockets of all shapes and sizes. The price is very reasonable, and the convenience of being able to obtain it from first-class cycle agents will be appreciated by wheelmen and wheelwomen.

## THE KELLY HANDLEBAR COMPANY.

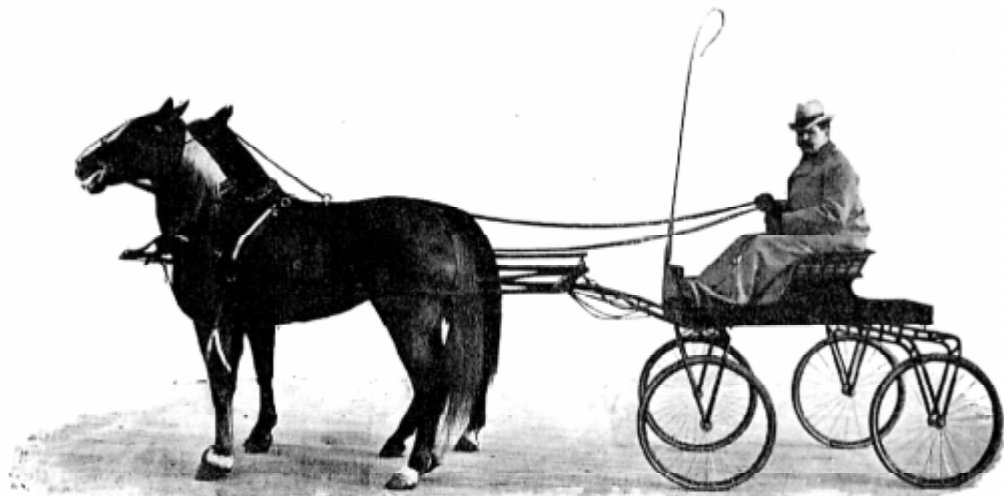
Adjustable handlebars are now not only the usual equipment of highest grade bicycles, but the riders of medium and lower priced machines are coming to demand that the same convenience be allowed also to them. This is quite reasonable, since there are a number of makes on the market, and the additional cost is so slight as to be unfelt. A worth pioneer is the Kelly, made by the Kelly Handlebar Company, of Cleveland, Ohio. Its introduction dates back to 1895. The essential feature of this design is a divided bar with sections

pivotaly connected to the stem, and provided with serrations which engage and interlock with corresponding parts in the head of the machine, being held from slipping by means of a clamping bolt. This bolt has, for 1900, taken the place of the old-time cap-screw with good effect. All working parts are made from drop-steel forgings, and the stem is of metal untouched by fire after forging. Thousands of these bars are in satisfactory use in the United States alone.

## EDWARD MILLER &amp; COMPANY.

The makers of the Majestic and Everlit acetylene gas lamps brought to the cycle accessories field, five years ago, a half century's successful experience in general lamp manufacture. Oil lights were the sole output of this concern in the cycle line until the season of 1899, when the acetylene gas type was taken up, and so satisfactory has the latter proven that for 1900 it has entirely superseded the older models. In the Majestic for this year the water reservoir is built below the combustion chamber, where it is not affected by the upward radiating heat from the flume. The carbide cup has corrugations at the side marked to indicate the amount of fresh carbide needed for one, two, three or four hours' riding, thus enabling one to calculate very near the expected consumption of carbide and supply accordingly. By this means useless waste is guarded against, and the lamp easily cleaned after each ride without removal of accumulated refuse.

## THE PROWLER.



CHAMPION PACING TEAM OF THE NEW YORK SPEEDWAY.

The champion racing team of the New York Speedway is shown with Mr. W. R. Rose driving. The team is made up with Sir Eld, 2:14 $\frac{3}{4}$ , by Storm, on the off side and Island Belle, 2:16 $\frac{1}{4}$ , by King Gold on the near side. It is an inspiring picture to see this team at full speed, for they are wonderfully mated in action and speed and can pace a short distance at a sensationally fast gait.

## THE LIGHT-HARNESS HORSE.

## NEW FOREIGN MARKET FOR TROTTERS.

OUR Austrian friends, who have become such strong bidders in American sale rings for the trotting-bred horse, will, if the signs indicate anything, soon encounter enthusiastic rivals in their neighbors of Poland. Gentlemen of wealth

in the latter country have long had their eyes on the American trotter and, noting the success of Austrians in both breeding and racing operations, they are rapidly cultivating a healthy appetite for "the Sport of all sports." Recently a Polish gentleman of wealth sent his emissaries to this country to make pur-