



Model "A" is particularly recommended. Specifications "White" 1897 Rodel B. Weight 24 Sounds with Sittings.

FRAME, drop pattern, gracefully curved upper bar, 1¾ inch cold drawn seamless steel tubing, 1½ inch top bar, ¾ inch tubing in

rear forks and 34 inch tubing in rear uprights; height 22 inches; other heights to order, FRAME PARTS. seamless sheet steel connections, strongly reinforced. FORKS, seamless steel fork sides, gracefully curved and mechanically reinforced; double fork crown. STREETING HEAD, 11 inches long, 1% inches in diameter. Hannie Bay cold drawn weldless steel tube. % inch in diameter; adjustable to four positions; our own invention. HANDLES, cork with metal tips. WHEELS, 28 inches, front and rear, WHEEL BASE, 44 inches. Rims, Kundtzreinforced laminated rims. Tires, Hartford, Morgan & Wright or New York. Spokes, swaged plano wire, 28 in front, 36 in rear; swaged, .080 to .060. Pedals. "King," rat trap or rubber; dust proof centers and bearings. CRANKS, special steel. round and tapered, with throw 6 inches long. CHAIN, 1/4 inch solid link with hardened rivet and steel centers. Saddle, made special to our order in black or tan leather. Saddle Post, an entirely new device, adjustable; patented. TREAD, 5 inches. Sprocket Wheels, both detachable, steel drop forgings. GEAR, 63 regular, higher if desired. BEARINGS, made of the best selected high grade tool steel, carefully tempered and dust proof; a far superior construction of the crank bearing than any heretofore used; see detailed description. Hubs, large tubular hubs from solid bar steel. Furnishings, tool bag, wrench, oiler, pump, repair kit; saddle and tool bag in black or tan leather. Finish, handle bar, hubs, sprocket wheels, cranks, seat post, pedals, spokes, screws, nuts, washers, heavily nickelplated over copper; fork crowns in white enamel with gold edge. Remainder finished in either white, black, maroon or "Brewster" green enamel, elaborately gold striped.

smooth running, graceful diamond frame machine, "The White"





with the purchaser of each White" bicycle to make good by repair or replacement, when delivered at our factory, transportation prepaid, any imperfection or defect in material or manufacture of such bicycle not caused by misuse or neglect; provided that the factory serial number shall be on such bicycle at the time the claim is made, and that all imperfect or defective parts shall be referred to us before any claim for repair or replacement shall be allowed.

This guaranty continues for six months from the date of the sale by the agent.

The White Sewing Machine 6.



GENTLEMEN'S WHITE AND GOLD MOUNT, MODEL A. PRICE \$100.
For Specifications see Gentlemen's Model A Regular

Gentlemen's White & Gold Roadster Model A

ings. A dream of poetic beauty in steel. All of "The lings. A dream of poetic beauty in steel. All of "The Vinter wheels are well known for beauty of outline, sym—watry, strength and speed. And in this new mount, "The White-and-Gold" Model A, all the familiar lines of beauty will be found and recognized. In addition, the delicate finish, in purest of virgin white and the richest of gold and silver trimmings, in contrasts and blendings true to the artist instinct in every detail, gives this, our latest and finest production, an air of distinction that cannot fail to appeal to all lovers of genuine art, and to those as well whose refined nature leads them to admire that happy combination of the strong, the delicate, the useful and the beautiful that goes to make up the fin-de-siecle masterpiece of art, architecture, iterature and

Gentlemen should bear in mind that none of the features of peculiar merit that have made "The White" so famous as a road machine—as a hill-climber, a coaster, an every-day stand-by, are a omitted in the construction of our "White-and-Gold" Model A. They are all there and, in addition, the daintiest, the catchiest, the so most attractive finish ever put upon a bicycle.



LADIES' WHITE AND GOLD MOUNT, MODEL B. PRICE \$100. For Specifications see Ladies' Model B Regular.



THE WHITE MODEL C. PRICE \$75.00

See Specifications opposite page.





TOP VIEW.



GENT'S STYLE.
NO. 1. BLACK. NO. 2. RUSSET.



LADIES' STYLE. NO. 3, BLACK. NO. 4, RUSSET.

Saddles " " " "

THE saddles we shall use on our wheels for this season are made especially for us by the Garford Mfg. Co. The one shown by cut will be furnished on Models "A" and "B." We consider it the best and most comfortable saddle ever placed upon the market. The depressed center is a new feature which dispenses with any pressure on the sensitive parts of the body-

After a careful examination and updates are updatured on hygienic principles, we have decided to adopt those made especially for us by the Garford Manufacturing Co. The two styles, illustrated below, are perfect in every detail, combining comfort in the extreme and in addition hygienic features that will be appreciated by all riders. As will be noticed we do not class these saddles under regular specifications applying to our wheels, but they can be furnished on Models 'Al' and "B" when specially ordered. They are finished in black and russet. In specifying style of saddles be careful to designate them as No. I being the gent's tyle in black, and No. 2 being the gent's tyle in russet. No. 3 being ladies' style in these, and No. 4 being ladies' style in trisset.

The Garford Manufacturing Co. is well known as a manufacturer of throughly reliable bicycle saddles, and we are confident that in offering these saddles with ""Uhine" wheels we have chosen wisely. A guarantee direct from manufacturer is given with each saddle, guaranteeing it to fit pefectly, to be selected from choice material and to give general satisfaction.









COMBINATION RUBBER.

The "King" Pedal.

The "King" pedal will be used on Models "A" and "B" and is the outgrowth of a number of years experience as manufacturers of pedals. It has an endless steel band, made very strong and light, with the ball cups set into same and especially hardened. The adjustment takes place in the outer end, is very simple, and is thoroughly protected from dirt by a dust proof cap. The end next the crank has also a special dust proof device. One of the important features of this pedal is the large number of balls (fifteen) which are in the outer end; it having been found by experience that most of the strain of the pedal comes on the outer end. The rubbers, as will be seen, fit directly on the rattrap pedal, and are fastened securely by only one screw. This will be appreciated as a decided convenience, as our agents have, at all times, either a rubber or a rat-trap pedal, according to the preference of his customer, by removing or adding the

rubbers. This can be done in but a few seconds of time as only one screw is required to attach or detach the rubbers.

This pedal, with which all our "C" and Grothe Pedal. "D" wheels will be equipped is well known for its durability and easy running qualities. The '97 Grothe has twelve balls in the outer end, while the adjustable screw has been changed so that it can be readily adjusted

with an ordinary screw driver from the opposite end. It also has a dust proof cap covering, opening into the balls on the shaft crank end, which makes it practically impossible for dust to interfere with the bearings. The rubbers for these pedals are the same as those used in the "King," and are fastened to the pedals with but one screw.



he White Bicyclo





White Sewing Machine (o Cleveland Ohio U.S.A.

BRANCHES LONDON, ENGLAND, NEW YORK, BOSTON, SAN FRANCISCO.

PARIS, FRANCE.



THE WHITE MODEL B. PRICE \$100. See Specifications opposite page.



THE WHITE MODEL D. PRICE \$75.00. See Specifications opposite page.





How the Cohite is Constructed This crant bearing possesses

Crank Bearings, Models A and B.

several very novel features, inasmuch as there are no cotter pins, one crank and the axle being

asmuch as there are no court pins, one crank and the axie being integral, while the other crank, from which there are four sprocket arms projecting, is fastened to the end of this shaft by means of a lock



TOP AND SECTIONAL VIEW.

nut and a left hand screw, rendering it impossible for the lock nut to become loose. This latter crank is held in its proper relation to the other by a key firmly seated in the shaft. The cups screw into the bracket. allowing the adjustment to be made by the cup, on the outside of which and solid with the cup is a hexagon nut, thus enabling the adjustment to be made with an ordinary wrench, and obviating the use of a special spanner-a convenient and desirable feature to the rider. Inside the cup, surrounding the shaft, is a felt washer, making the bearing practically dust proof. The balls in the cups are held in place by retainers, allowing the cup and bearing to be taken apart without a possible danger of losing the balls. The cups are held in place by clamping the bottom bracket by the means of the lugs and a screw. The cones are placed on the shaft with a very ingenious lock so that they are fixed stationary on the shaft, and at the same time have a



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SIDE VIEW.



The sprocket wheel is of the latest and most approve double ring type, and made especially from our own dies.

Crank Bearings, Models C and D. This is a further development of the bearing which we used in '96, the special features being as follows: The arms of the sprocket are integral with the shaft, allowing us to use plain cranks, which are fastened

with cotter pins to this shaft. The right-hand cone is securely locked to the shaft, while the left engages with a hexagon mut which also acts as an adjusting mut. Both cones depending for their central position upon long, plain ground bearings. The ball yetainers are in such nosition that the bearings can be taken apart

without danger of the balls falling out, 5-16 balls are used, as they have been proven the most desirable for the crank bracket.



SIDE VIEW.







Hubs

The shells of the hubs shown by illustrations are milled from solid bar steel. The cups are pressed into same and connected by a thin oil tube, the

ends of which project into the cup for the purpose of forming a part of the ball retainer. The other part of the ball retainer is a washer, through which the cone enters and between which and the flange on the cone is placed a felt washer. This makes a very circuitous and difficult path for any dust to enter and renders them practically dust proof.

The Bearings are our regular three-point style with the cups and cones very hard, making a very easy running bearing and requiring a minimum of lubrication.

> Our standard sprocket for the rear hub this year will have eight teeth, which, with the corresponding large sprockets, will furnish almost any gear desired.



REAR HUB.



FRONT HUB.

SEAT POST.

We wish to call special attention to our patent adjustable post, which we regard as the most ingenious ever devised. The jaws are held firmly in the grooves of the bar which forms the "L" by a screw, which makes the whole as one solid piece. By removing the screw this "L" part can be placed either in front or rear at the will of the rider; it being impossible to change the "L" without entirely removing the screw, thus obviating any possible danger if the screw should become loose, or accidentally left so. The fine trim appearance of this post, as shown by illustration. will be highly appreciated by the rider.





BOTTOM BRACKET.

Frame Connections.

The frame connections in Models "A" and "B" including the bottom bracket, are made from the best quality of cold rolled sheet steel, with the exception of the seat post bracket, which is a drop forging. These are all seamless, the lugs made so by

being electrically welded, while the bottom bracket is without a seam of any kind. The metal in these being absolutely uniform and of the very best quality, they are not subjected to the variations or "cold shuts" of a drop forg-

HEAD LUGS.

ing, and are, therefore, far superior.

Jire Guaranty

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New York Jires, 1897.

We agree with the purchaser of each tire, to make good by repair or re-

placement, when delivered to us, transportation prepaid, any imperfection or defect in material or manufacture of such tire, not caused by misuse or neglect; providing such tire is accompanied by a signed statement from the owner, giving date on which the tire was purchased by him, together with the name and number of wheel on which it was used; and that all imperfect or defective tires shall be referred to us before any claim for repairs or replacement shall be allowed. We agree to repair free of charge any tire that can be repaired, providing such tire is delivered to us transportation prepaid. This guaranty continues for six months from the date of the sale by the agent, but expires in any event on May 1, 1898. This agreement does not apply to tires into which any so-called anti-leak preparation has been introduced.

NEW YORK TIRE COMPANY, 6.3 Franklin Street, Boston, 59 Reade Street, New York City. 334 Dearborn Street, Chicago. 1510 Market Street, San Francisco,





09e will give our customers the same protection on tires accorded to us by tire manufacturers. Defective tires must be returned direct to the tire manufacturers and not to us. They have ample facilities for repairing same and do so under their guaranty free of charge. Always prepay express charges.

artford Jires. 1897.

We agree with the purchaser of each a tire, to make good by repair or re-

placement, when delivered to us, transportation prepaid, any imperfection or defect in material or manufacture of such tire, not caused by misuse or neglect; providing such tire is accompanied by a signed statement from the owner giving date on which the tire was purchased by him, together with the name and number of wheel on which it was used; and that all imperfect or defective tires shall be referred to us before any claim for repairs or replacement shall be allowed. We agree to repair free of charge any tire that can be repaired, providing such tire is delivered to us transsportation prepaid. This guaranty continues for six months from the date of the sale by the agent, but expires in any event on May 1, 1898. This agreement does not apply to tires into which any so-called anti-leak preparation has been introduced,

HARTFORD RUBBER WORKS CO., Hartford, Conn. 100 Chambers Street, New York City. 910 Filbert Street, Philadelphia.

136 East Lake Street, Chicago, 370 Atlantic Avenue, Boston. 251 1st Avenue, South, Minneapolis, 19 Beale Street, San Francisco. 8 Queen Street, East, Toronto, Canada.

organ & Wright, 1897.

We shall continue, in 1897. our custom of repairing all tires of our manufacture free of charge. We shall replace defective parts, when, in our iudgment, the defect is from our fault. In no case will we replace when worn out in service or injured by accident. Make your request direct to us, and not through the makers of your wheel. Express charges on tires must be prepaid in every instance. If return by mail is desired, postage at the rate of one cent per ounce must come with the request for repairs. Do not send the wheel with the tire. See that every package sent has your address securely fastened to the package,

MORGAN & WRIGHT, 331 to 339 Lake Street, Chicago, Illinois.

Terms of Sale

Cash With Order. Except in case of customers with whom we have a credit account, cash must accompany the order or be paid upon receipt of invoice.

C. O. D. orders must be accompanied by sufficient money to cover express charges both ways.

Dealers desiring to open accounts are requested to send us, as references, the names of two or more well-known commercial houses with whom they have business relations.

No discount will be allowed from list prices, except to regular dealers.

Money should be sent by Postoffice Money Order, Express or by Draft on New York or Chicago.

Charges must be prepaid on all goods returned, and such goods should be distinctly tagged with owner's name.

We are not responsible for safe delivery of goods beyond the postoffice, express or freight depots at shipping point.

With every order give full shipping instructions.

Address all business correspondence

THE WHITE SEWING MACHINE CO.,

124-126 Euclid Avenue, CLEVELAND, OHIO,

(Bicycle Department,)





Acting upon the presemption that the more cheap wheels sold the greater would become the demand for those of strictly high grade, we have directed our efforts solely in one direction—concentrating our forces upon one single point—the manufacture of the best that money can buy or skill produce. And we meu all that may be inferred from this statement. Our guaranty means nothing more or less. Our advertising means just that and every statement is made good all the time and in every way.

It is true we build two grades of bicycles: Models 'A' and 'B'' with list at \$50.00, and 'C'' and 'D'' with list at \$75.00. Each the best of its particular class, our second grade being in no ways inferior to Models 'A' and 'B'' in points of ease, comfort, durability and satisfaction to the rider, built as they are from the best in the particular of the same worknew and modeled after the same lines. Indeed it is not too much to claim that our second grade might well serve as models for the so-called high-grades of many manufactures.

Every desirable feature in the manufacture of bicycles is embodied in those of our production. Ease of management, speed and adaptability, are a few of the special features found in "She White" as they are found mouhere else. Our "White-and-Gold" finish is the daintiest conceit ever employed to render the bicycle beautiful and attractive. Our designs are the work of artists—men at the head of their profession and so acknowledged to be—men whose efforts are constantly directed toward higher and higher conceptions of perfection and adaptability. The lines of "The White" wheel combine grace and beauty with the highest form of durability and rigidity. They fully embody every requirement—speed, confort, beauty of utiline, accuracy of fillings, simplicity of repair. There is nothing left to be desired.





In the two essentially important particulars of material and working the ended to a did that "The "Dhie" is at the apex. Every piece of material closely and repeatedly inspected, every mechanic the best that can be employed, every process carefully scruciated, every finished part severely tested, every wheel tried tested, abused, inspected over and over again, strains put upon them that do not come upon many wheels in actual use—all these things are every-day common-places in the magnificent plant in which "The "Dhite" was born, and from which thousands of these splendid machines have been turned out during the past year, and from which thousands more must come to satisfy the demands.

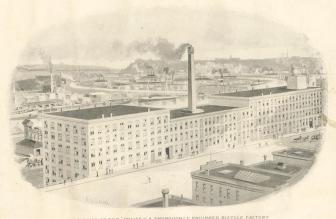
It is fitting and most appropriate that we here express our gratitude to the public for the friendly greating accorded our wheel, for the readiness with which the merits possessed by "The "Ohte" were recognized and approved, and for the constant loyally and unsuperving allegiance that have made our wheel the success of the present era. We assure every patron and friend that "The "Ohte" shall continue in the front ranks and that no effort shall be spared, no expense withheld that can tend to place our product still further in the wan of progress.

We invite your careful attention to the descriptive reading matter following. We have almed at such full description of each of our wheels as will enable every reader to form a mental picture, that, in connection with the numerous accurate illustrations, will prove correct to memoral death.

Yours respectfully,

WHITE SEWING MACHINE CO.,

Cleveland, Ohio.



THE HOME OF THE "WHITE," A THOROUGHLY EQUIPPED BICYCLE FACTORY LENGTH 505 FEET, HEIGHT TO FEET, FLOOR SPACE 125-000 SQUARE FEET. CLEVELAND OHIO U. S. A. 1896.



THE WHITE MODEL A. PRICE \$100.

See Specifications opposite page.



MARMONIOUS in lines, graceful in design, perfect in construction, beautiful from every point of view, "The White" Model A is that wheel in which the highest expression of the bicycle art has been reached. Many years of experience in the construction of the finest machinery have brought about the result that the cyclists of the world have lone expected and never before realized.

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Every detail of construction marks the extreme limit of occuracy from in bicycls manufacture, and the quality and finish of the bearing parts are an education to those who are imused to this class of work. This machine is a thoroughly practical road wheel, and is adapted for either the business man or the club scoroher. It is sufficiently light for any reasonable use, and at the same time strength and durability are not in any way sacrificed to this end.

Specifications "White" 1897 Model. A.
Weight 23 Pounds with Tittings.

FRAME, high diamond pattern, 134 inch cold drawn seamless steel tubing, 134 inch top bar, 74 inch tubing in rear forks,

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