



1899.

THE DAYTON.

GEO. A. CO., BUFFALO, N.Y.

1899
DAYTON
BICYCLES

MANUFACTURED BY

The Davis Sewing . . .
. . . Machine Company,

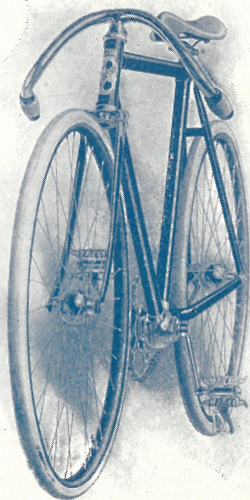
DAYTON, OHIO, U. S. A.



New England Agency
BIGELOW & DOWSE CO.,
229 Franklin St., BOSTON, MASS.

European Office:
No. 24 ALDERSGATE ST., E. C.,
LONDON, ENGLAND.

Dayton Construction.



THE '99 DAYTON SPECIAL,
showing Spherical Hubs and Crank
Hanger (Patented).

THE ANNUAL INCREASE IN SALES OF DAYTON BICYCLES since their first introduction conclusively demonstrates the merit and value of "Dayton" quality. The many novel features and real improvements found in the new Dayton Models herein described, combined with that perfection in construction and finish with which the name "Dayton" has become inseparably associated, give promise of a still greater increase in the ranks of Dayton riders in 1899, in anticipation of which a largely increased capacity for production has been provided.

The Dayton frame is noted for its beauty of design, strength, rigidity and durability. It is well known as the original large tubing frame, $1\frac{1}{4}$ -inch tubing having always been used in the main frame. Its hand-polished enamel has never been equalled for lustré and lasting finish. The wheels contain the highest grade rims obtainable, needle steel spokes of extra quality, and hubs made of special stock and designed to resist all strains; the combined result being maximum strength and the lightest possible weight. Every part of all Dayton bearings is made from the finest tool steel, perfectly tempered, and ground and polished by special machinery until each bearing surface is absolutely true.

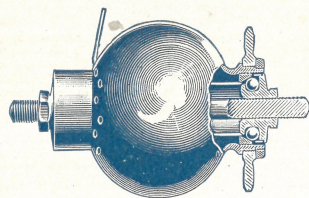
The new bearings used in "Dayton Specials" are described elsewhere; in all other models the three-point bearing, so successfully used in all 1897 and 1898 Dayton wheels, is retained. The easy running qualities for which Daytons are famous, are secured by the perfection of the bearings, careful attention to mechanical accuracy at all points and scientific correctness in construction.

The right crank and axle in all Dayton wheels are forged in one piece of spring steel. The device for attaching the left crank, tested by long and satisfactory service, is only slightly changed on the different models, and is clearly illustrated. As in 1898, on "Dayton Specials" the driving sprocket is attached at four points upon threaded studs, which are of one piece with the right crank and its arms, being secured by four jam nuts. The driving sprockets on Models 35 and 36 are attached by five bolts to a flange forged in one piece with the crank shaft.

All 1899 Dayton wheels are equipped with the well known "Dayton" double-plate crown front fork, which has no equal for beauty of design and strength. The top plate of this crown is of one piece with its raised oval caps, which form sockets into which the ends of the fork sides are securely brazed. The arched ferrule between the plates is brazed on the steering tube of fork and adds greatly to its strength and beauty. On all "Dayton Specials" the fork crown is handsomely finished in nickel. Any loosening of the head bearings is absolutely prevented by a new device for locking the adjustment.



Spherical Hubs.

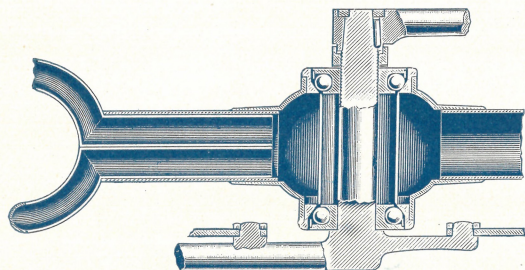


THE "HUSSEY" HUB,
showing Design of Hub and Con-
struction of Bearings
(Patented).

ness. In the "Hussey" Spherical Hubs and Spherical Crank Hanger, these qualities are especially prominent, and all 1899 "Dayton Specials" (including Models 30, 31, 32 and 33) will embody this unique construction. The design of the "Hussey" hub is clearly shown by the accompanying illustration, but the full beauty of its appearance in the complete

DAYTON BICYCLES ARE NOTED for that originality in construction which attains deserved popularity through practical value, real novelty and increased attractive-

ness. Its heavily nickeled surface catches and reflects every ray of light, imparting to the bicycle a peculiar attractiveness and distinctive individuality not obtainable in any other mount. The hub having no flanges, any possibility of annoyance from a spoke pulling out is obviated. The spokes are inserted in holes in the body of the hub, as shown in cut. That the spherical hub, while lighter in weight, is at the same time stronger than any hub previously used, can be demonstrated mechanically and has been proven by practical tests. The spherical crank hanger, handsomely finished in nickel, adds greatly to the beauty of the wheel, and produces a uniform and artistic

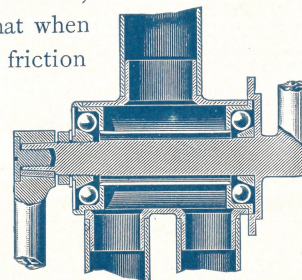


SPHERICAL CRANK HANGER.
Sectional View, showing Rear Fork Construction, Crank
Fastening and New Bearings.

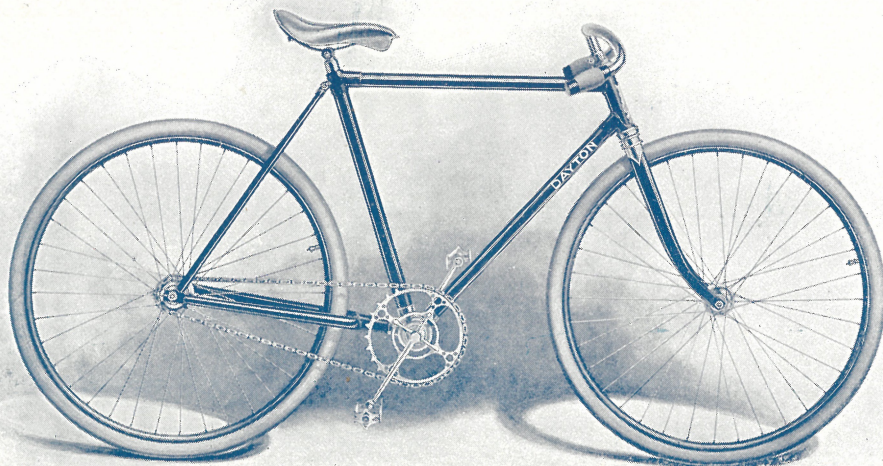
effect. Another practical advantage in the spherical construction is that it prevents the accumulation of dust or dirt upon the hubs and crank hanger, and greatly facilitates keeping these parts clean and bright.

The new three-point bearings used in the hubs, crank hanger and head of "Dayton Specials" are

shown in sectional views. As will be seen, the construction of this bearing is new and original, each ball having two points of contact on the cone and one on the conical surface of the cup. The balls are retained upon the cone when removed, rendering the bearing easily accessible for cleaning. While provided with a practical and effective ball retainer, the construction is such that when the cone is in place any friction from contact with the retainer is absolutely impossible. Practical tests have thoroughly demonstrated the durability and easy running qualities of these bearings.



Crank Hanger and Flush Joint Construction
of Models 35 and 36.



Model 32, Special Road Racer.

IN ITS GENERAL LINES this model corresponds to the 1898 Model 22, beyond question the most popular wheel ever produced. The crank hanger is dropped 3 inches and the frame is closely built so that no larger than $1\frac{1}{2}$ -inch tires can be used. It has that striking air of speed, combined with grace and style, which has always characterized the Dayton, and with the nickeled spherical crank hanger and spherical hubs, it is, beyond comparison, the most attractive wheel ever offered for fastidious riders. While of the lightest possible weight and in reality a racing wheel, it is fully reinforced and is perfectly adapted for general use and guaranteed.

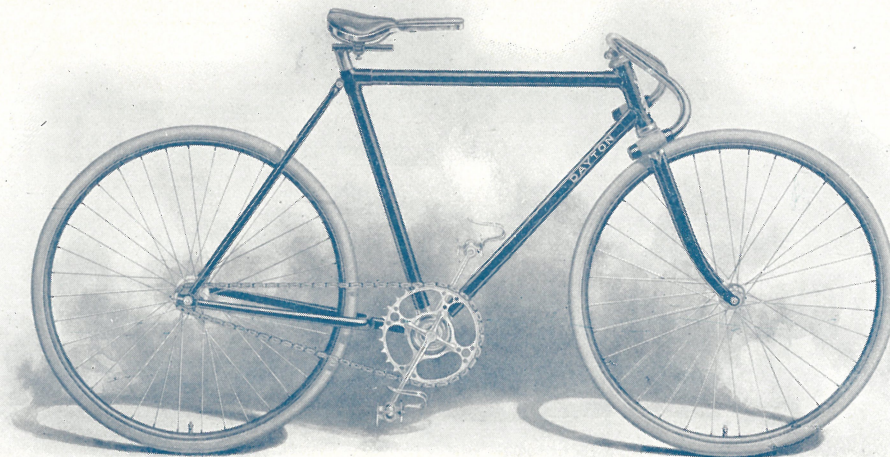
Specifications :

- Height of frame.**—22 inches regular; 20 or 24 inches optional.
- Color.**—Carmine, olive green or black enamel.
- Cranks.**— $6\frac{1}{2}$ inches (7-inch optional, but not recommended with 3-inch drop).
- Tread.**— $4\frac{3}{4}$ inches.
- Rims.**—Mahogany stained or natural wood.
- Handle Bar.**—Optional (see page 20).
- Gears.**—22, 24, 26 or 30-tooth front sprocket; 7, 8, 9, 10, 11 or 12-tooth rear sprocket (see table, page 24).
- Pedals.**—Dayton saw-tooth or rubber.

For options on tires and saddles see pages 22 and 23.

Model 30, Special Men's Roadster.

THIS MODEL IS RECOMMENDED FOR HEAVY RIDERS and those who prefer a wheel with greater capacity for hard service to extreme lightness in weight, or desire larger tires than can be used on Model 32. The frame is constructed of heavier tubing and connections, and has extra reinforcements. It has $2\frac{1}{2}$ -inch drop in crank hanger and will permit the use of $1\frac{5}{8}$ or $1\frac{3}{4}$ -inch tires. Other specifications same as Model 32.



Model 33, Special Track Racer.

THE SUPERIORITY OF THE DAYTON TRACK RACER is now universally recognized, having been completely demonstrated by its thousands of victories in all parts of the world. Dayton speed is attributable to correctness of design, strength and rigidity of frame, perfection of bearings, extreme care in inspection and faultless construction throughout.

In the Model 33 every saving in weight possible on a wheel not intended for road riding has been carefully calculated, without for a moment losing sight of requisite strength and the safety of the rider. Space is allowed in the forks for only $1\frac{1}{4}$ or $1\frac{3}{8}$ -inch tires. It has the "Hussey" Spherical Hubs and Crank Hanger, 3-inch drop in crank hanger and other features of the Model 32.

The phenomenal success of the 1898 Dayton Track Racer has conclusively demonstrated that there is a large demand for a wheel designed exclusively for track use and warrants the reduction in price to \$75.00.

Specifications :

Height of frame.—22 inches only; steering head $5\frac{1}{2}$ -inches.

Color.—Carmine enamel.

Cranks.— $6\frac{1}{2}$ inches.

Tread.— $4\frac{3}{4}$ inches.

Rims.—Mahogany stained or natural wood.

Handle Bar.—No. 1 racing (option of racing bars, page 20).

Gears.—Front sprocket, 22, 24, 26 or 30-tooth; rear sprocket, 7, 8, 9, 10 or 11-tooth (see table, page 24).

Pedals.—Dayton racing.

Tires.— $1\frac{1}{4}$ or $1\frac{3}{8}$ -inch racing (see options, page 22).

Saddle.—Racing (see options, page 23).

Lightest track weight according to equipment.



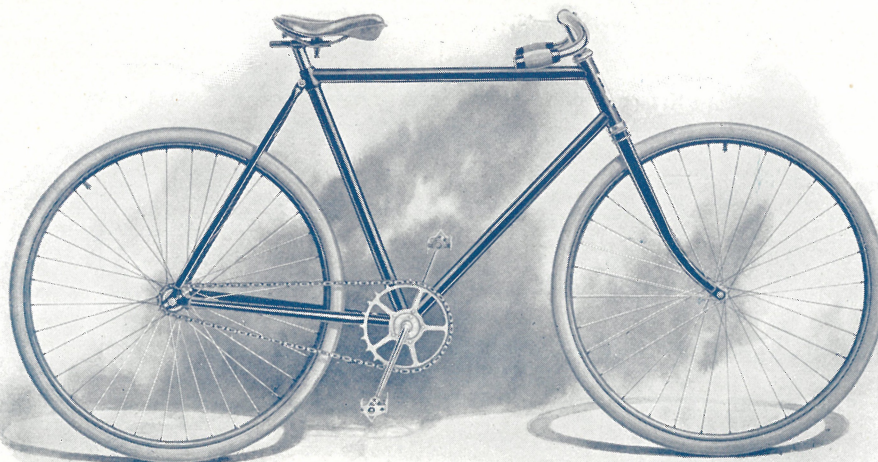
Model 31, Ladies' Special.

FOR LADIES DESIRING THE VERY FINEST WHEEL possible in construction, finish and equipment, and the most serviceable and satisfactory mount obtainable, the ladies' "Dayton Special" is confidently recommended. The frame is new and original in design, affording the greatest convenience in mounting, and an easy and graceful position for the rider. The dress is amply protected by an extended guard over the rear wheel and a continuous chain guard completely covering the gears. An aluminum fretwork of ornamental design covers the front sprocket. The rear wheel can be removed without disturbing the chain guard in any way. The spherical hubs, spherical crank hanger and fork crown handsomely finished in nickel give to this model that distinctive elegance which is the mark of Dayton superiority. A 22-tooth driving sprocket is used, a satisfactory range of gears being obtained by the options offered in sizes of rear sprockets.

Specifications :

- Height of frame.**—22 inches regular; 20 or 24 inches optional.
- Color.**—Carmine, olive green or black enamel.
- Cranks.**—6½ inches regular; 6 inches optional.
- Tread.**—5 inches.
- Rims and Guards.**—Mahogany stained or natural wood.
- Handle Bar.**—Adjustable.
- Gears.**—56 (22 and 11); 61⅔ (22 and 10); 68⅔ (22 and 9); or 77 (22 and 8)
- Pedals.**—Dayton ladies' rubber (convertible).

For options on tires and saddles see pages 22 and 23.



Model 35, Men's Roadster.

THIS ROAD MODEL FOR MEN possesses the same excellence in quality of materials, high degree of workmanship and finish, strength and reliability, and capacity for satisfactory service, for which the Dayton line is noted. While lacking some of the special features offered on "Dayton Specials," it is in no way inferior in these important qualities, and far surpasses all wheels of other manufacture in merit and value. The frame is correct in design, is constructed of $1\frac{1}{4}$ -inch tubing, has $2\frac{1}{2}$ -inch drop in crank hanger and flush joints throughout. The front fork has the regular Dayton double-plate crown. The perfection of the crank hanger mechanism and bearings has been proven by the most satisfactory service. Riders who do not care to pay the additional price for the distinctive features found only on "Dayton Specials" can obtain in this model all the essential Dayton qualities and a range of equipment calculated to meet all demands.

Specifications :

Height of frame.—24 inches regular ; 22 or 26 inches optional.

Color.—Maroon, olive green or black enamel.

Cranks.— $6\frac{1}{2}$ inches ; 7 inches optional.

Tread.—5 inches.

Rims.—mahogany stained or natural wood.

Handle Bar.—Optional (see page 20).

Gears.—20, 22, 24 or 26-tooth front sprocket ; 7, 8, 9 or 10-tooth rear sprocket (see table, page 24).

Pedals.—Dayton saw-tooth or rubber.

For options on tires and saddles see pages 22 and 23.



Model 36, Ladies' Roadster.

HAVING THE SAME CONSTRUCTION AS MODEL 35 and differing only in the shape of the frame, this model presents equal advantages with the men's flush joint wheel. The grace and elegance of its lines and lightness of appearance will appeal at once to all lady riders. The design of frame is the same as Model 31, Ladies' Special, providing the utmost ease of mounting, ample space, and giving the rider a graceful and correct position when on the wheel. The continuous chain guard and extra length of the wheel guard furnish complete protection to the skirt. With the superb finish of all Dayton wheels and the same desirable equipment provided for Model 35, the Ladies' Roadster is unquestionably superior to any other ladies' wheel offered at any price, and for beauty and attractiveness is surpassed only by the Model 31, "Ladies' Special." Dayton quality means real value, and this fact has never been more clearly apparent than in the 1899 Models 35 and 36.

Specifications :

Height of frame.—22 inches regular ; 20 inches optional.

Color.—Maroon, olive green or black enamel.

Cranks.—6½ inches regular ; 6 inches optional.

Tread.—5 inches.

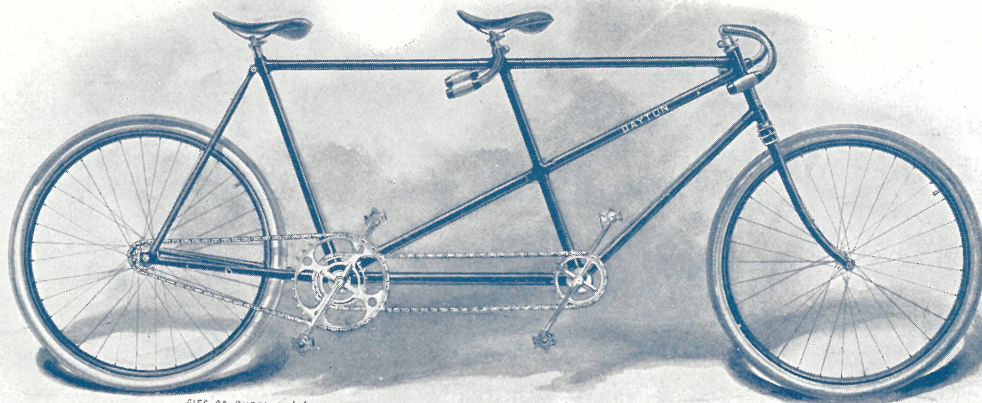
Rims and Guards.—Mahogany stained or natural wood.

Handle Bar.—Adjustable.

Gears.—Front sprocket, 17, 18, 19, 20 or 22-tooth ; rear sprocket, 7, 8 or 9-tooth (see table, page 24).

Pedals.—Dayton ladies' rubber (convertible).

For options on tires and saddles see pages 22 and 23.



6155 CO. BUFFALO, N.Y.

Dayton Tandems.

IN CORRECTNESS OF DESIGN, strength, rigidity of frame, durability and easy-running qualities, Dayton tandems have no equal. The line is complete and only slightly changed in minor details from the 1898 models. As heretofore, the frames are of $1\frac{1}{4}$ -inch tubing, except the head and bottom tube which are $1\frac{3}{8}$ -inch. The triple-plate fork crown is a valuable feature. The crank construction is the same as on "Dayton Specials" and an eccentric in the front crank hanger provides adjustment for the front chain. The popularity and largely increased demand for Dayton tandems has justified a material reduction in price.

Model M, Single Steering Road Tandem.

Height of frame.—24 inches regular; 22 inches on special order.

Color.—Carmine enamel; olive green or black on special orders.

Cranks.— $6\frac{1}{2}$ inches.

Tread.—5 inches front, $5\frac{1}{2}$ inches rear.

Rims.—Mahogany stained.

Handle Bars.—Front bar optional; rear bar fixed, either 2-inch rise or 2-inch drop. (On Model N any regular bar optional both front and rear.)

Gears.—30-tooth front sprocket; 8, 9, 10, 11 or 12-tooth rear sprocket.

Pedals.—Dayton saw-tooth or rubber.

See options on tires and saddles, pages 22 and 23.

Model N, Double Steering Tandem.

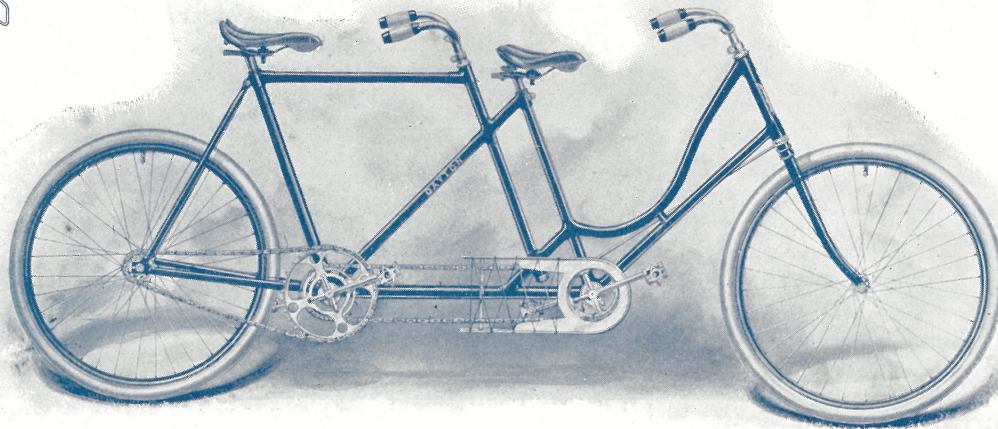
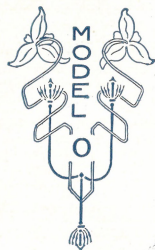
Same as Model M with addition of rear steering connection.

Model K, Special Track Tandem.

A single steering racing tandem, having the transverse tube omitted from the frame and built lighter throughout, making it the fastest machine of its class ever produced. The height of frame is 22 inches and it is furnished with $1\frac{1}{2}$ or $1\frac{3}{8}$ -inch tires. Other specifications same as Model M.

The Dayton Triplet, Price \$200. The Dayton Quad, Price \$400.

Dayton Multicycles are world renowned and unequalled for strength and speed. Built only on special orders.



Model O, Combination Tandem.

POSSESSING ALL THE QUALITIES which give to Dayton tandems their superiority, this model will meet with the highest praise from both its lady and gentlemen riders. The frame is designed to afford greatest comfort, and its construction insures perfect safety and satisfactory service.

Height of Frame.—22 inches front, 24 inches rear. (On special orders 20 and 22, or 22 and 22 inches can be supplied.)

Color.—Carmine enamel; olive green or black on special orders.

Cranks.—6½ inches.

Tread.—5 inches front, 5½ inches rear.

Rims and Chain Guard.—Mahogany stained.

Handle Bars.—Adjustable.

Gears.—70 (30 and 12), or 76¼ (30 and 11).

Pedals.—Dayton rubber.

For options on tires and saddles, see pages 22 and 23.

Model L, Double Drop Tandem, Price \$125.00.

THE DAYTON DOUBLE DROP TANDEM was the first tandem for two ladies ever introduced, and many are now in satisfactory use. The design of frame corresponds to Model O with curved drop both front and rear. The frame is made regularly 22 inches front and rear. The sprockets and chains are fully protected by a continuous guard.

The specifications are the same as above except gears, which can be supplied only 68½ (22 and 9), or 77 (22 and 8).



Dayton Handle Bars.

THE WIDE RANGE OF OPTIONS IN HANDLE BARS offered on Dayton wheels, cannot fail to meet fully the tastes and requirements of every rider. The Dayton adjustable bar (No. 7) can be quickly converted to either a drop or raised bar in a great variety of positions. The Kelly adjustable bar, which is also optional on all 1899 Dayton Models, is capable of 15 inches adjustment and 25 different positions.

No. 1, Narrow Racing Bar.—Width 16 inches; drop 4 inches.

No. 2, V-shaped Racing Bar.—Width 16 inches; drop 7 inches.

No. 7, Adjustable Bar.—Width 16 inches; drop or raise 3 inches.

No. 10, Special Road Racing Bar.—Width 18 inches; drop 3 inches.

No. 11, Forward Racing Bar.—Width 16 inches; drop 4 inches.

Kelly Adjustable Bar.—Extreme width 18 inches.

Brakes.

A HAND LEVER BRAKE, neat, light and strong, will be furnished without extra charge on all road models, when specified in order. This brake is designed to fit the Adjustable Handle Bar (No. 7) and order should mention whether it is desired for a drop or raised position of the bar. It can be readily detached from the wheel, when desired.

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Dayton Pedals.

THE PEDAL IS ONE OF THE VITAL PARTS OF A BICYCLE and upon its reliability the safety of the rider, as well as his convenience and satisfaction, are largely dependent. The perfection of the Dayton pedal and its unprecedented record are indicative of the general perfection of Dayton construction. Made entirely in the Dayton factory, it is ornamental and attractive in design, and has never been approached for durability and strength. Like all nickeled parts on Dayton wheels, it is heavily nickel plated on copper, producing a finish unexcelled for lustre and lasting qualities. The bearings are self-oiling and made from the best tool steel, carefully tempered. The use of $\frac{3}{8}$ balls in the bearings provides increased strength and service, and adds materially to the easy running qualities of the pedal. Dayton pedals are furnished in the four styles shown: Men's Rubber (convertible), Men's Saw-tooth, Ladies' Rubber (convertible), and a track racing pedal, used only on Model 33. A special men's pedal, extra wide, with $4\frac{1}{2}$ -inch side plates, can also be supplied.

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Tire Options.

THE LIST OF TIRE OPTIONS ON DAYTON WHEELS FOR 1899 has been carefully selected from the standard and most popular makes, and permits a choice to suit the preference and special requirements of all riders.

In addition to the tires named above, the Palmer (single tube) tire will be furnished without additional charge on "Dayton Specials."

The following tires are optional on all 1899 Dayton Models:
Kangaroo Tires (single tube).
Dunlop Tires (double tube, detachable).
Goodrich Tires (single tube, special quality "Palmer Fabric").
Hartford Tires (single tube, No. 80).
Morgan & Wright Tires (either single or double tube).

Guaranty on Tires.

THE TIRES FURNISHED ON ALL DAYTON WHEELS ARE GUARANTEED by their makers and not by the Davis Sewing Machine Company. All tires claimed defective, or requiring repairs, must be sent direct to the tire manufacturers. In this event, the package must be plainly marked with the name and address of the sender, and a letter of explanation must be forwarded by mail at time of shipment. Express charges should invariably be prepaid.

The addresses of the different tire manufacturers are as follows:
Kangaroo.—National India Rubber Co., Bristol, R. I.; 227 Broadway, New York City; 28 Kingston St., Boston, Mass.
Dunlop.—The American Dunlop Tire Co., Belleville, N. J.; 134 Lake St., Chicago, Ills.
Morgan & Wright.—Morgan & Wright, No. 331 Lake Street, Chicago, Ills.

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Goodrich & Palmer.—The B. F. Goodrich Company, Akron, Ohio; 66 Reade Street, New York, N. Y.; 141 Lake St., Chicago, Ills.; 7½ Appleton St., Boston, Mass.

Hartford.—Hartford Rubber Works Co., Hartford, Conn.; 100 Chambers St., New York City; 136 E. Lake St., Chicago, Ills.; 188 Columbus Ave., Boston, Mass.

Saddle Options.

ON NO OTHER WHEEL IS OFFERED AS LARGE A SELECTION nor as liberal an option in saddles as is afforded to purchasers of the Dayton. Every rider will find, in the variety of makes and types of saddles named in the following list, the style especially adapted to his or her demands.

Models 30, 31 and 32, and Tandems.—Wheeler, Gilliam, Sager (semi-flexible: No. 1, men's; No. 2, ladies'), Sager (flexible: No. 4, men's; No. 8, ladies'), Christy, or Mesinger "Special."

Model 33.—Wheeler ("Special" or "Cork Top"), Gilliam (No. 62, Wood Base Racing), Sager (No. 34 Racing), Hollenbeck (Raw Hide), Christy (Racing), or Brown (Style B Racing).
Models 35 and 36.—Wheeler, Gilliam, Sager (No. 34 Wood Base or No. 35 Wood Base Padded), Mesinger, or Lerch (anatomical).

Gear Cases.

MODELS 30, 31, 32, 35 AND 36 CAN BE FITTED WITH GEAR CASES if desired, on special order, at an additional cost. Only gears in which no larger than 24-tooth front sprocket is used, permit this equipment.

Gears for Models 30, 31, 32 and 33.

REAR SPROCKETS	DRIVING SPROCKETS			
	22	24	26	30
7	88	96	104	120
8	77	84	94	105
9	68 $\frac{1}{2}$	74 $\frac{1}{2}$	80 $\frac{3}{4}$	93 $\frac{1}{2}$
10	61 $\frac{3}{4}$	67 $\frac{1}{2}$	72 $\frac{1}{2}$	84
11	56	61 $\frac{1}{2}$	66 $\frac{1}{2}$	76 $\frac{1}{2}$
12	51 $\frac{1}{2}$	56	60 $\frac{3}{4}$	70

On Model 31 (ladies') only the gears obtained with a 22-tooth driving sprocket can be supplied.

Gears for Models 35 and 36.

DRIVING SPROCKETS	REAR SPROCKETS.		
	7	8	9
17	68	59 $\frac{1}{2}$	52 $\frac{3}{4}$
18	72	63	56
19	76	66 $\frac{1}{2}$	59 $\frac{1}{2}$
20	80	70	62 $\frac{3}{4}$
22	88	77	68 $\frac{3}{4}$
24	96	84	74 $\frac{3}{4}$
26	104	91	80 $\frac{3}{4}$

On Model 36 (ladies') no larger front sprocket than 22-tooth can be used in chain guard. On tandems, Models M, N, O and K, only a 30-tooth driving sprocket is used, with 8, 9, 10, 11 and 12-tooth rear sprocket.

On tandem Model L, only a 22-tooth driving sprocket can be furnished.

1899 Guaranty.

WE AGREE WITH THE PURCHASER of each Dayton 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 (pneumatic tires excepted), provided that the Factory Serial Number shall be on such bicycle when claim is made, and that all imperfect or defective parts shall be referred to us before any claim shall be allowed. This guaranty does not cover the cost of repairing said bicycle when damaged by accident, misuse or neglect. This guarantee continues 60 days from the date of original sale by the agent.

All tires are guaranteed by the makers, and not by us. Any tires claimed defective or needing repairs, must be sent to the manufacturers direct.

THE DAVIS SEWING MACHINE CO.

MANUFACTURED BY

THE DAVIS SEWING MACHINE CO.,



DAYTON, OHIO.

· U · S · A ·

EUROPEAN OFFICE:
24 Aldersgate St., London, E.C.

