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*Veeder*<sup>N</sup>

ODOMETERS  
AND  
TACHODOMETERS,  
CHRONODOMETERS.

THE VEEDER MFG. CO.  
HARTFORD, CONN.  
U.S.A.

# Collected New York Auto Show -Jan 6 To 13,1917



Plant and General Offices of Veeder Mfg. Co., at Hartford, Conn.

CATALOGUE No. 615

## Guarantee

We guarantee Veeder Odometers, Chronometers and Tachometers for one year against imperfections in material or workmanship. If any instrument is broken by accident, and not injured beyond repair, return it to us and it will be repaired at a reasonable charge. We are not responsible for instruments lost in the mails unless 10 cents is enclosed for registering.

*The* Veeder Mfg. Co.,  
Hartford, Connecticut, U. S. A.

C. H. VEEDER, *President*

D. J. POST, *Treasurer*

H. W. LESTER, *Secretary*

E. B. SMITH, *Asst. Secretary*

HARTFORD, CONNECTICUT, U. S. A.

## Form K Hub Odometer

The Veeder Hub Odometer, Form K is a positive mileage recorder. It registers the distance traveled backward as well as forward. This prevents anyone from subtracting mileage by running the wheel backward. It is arranged to be sealed on to the hub, in place of the regular hub cap and cannot be taken off without the owner's knowledge. There is no way to disconnect it by slipping gears out of mesh. Hence, the Odometer gives a true record of the mileage.

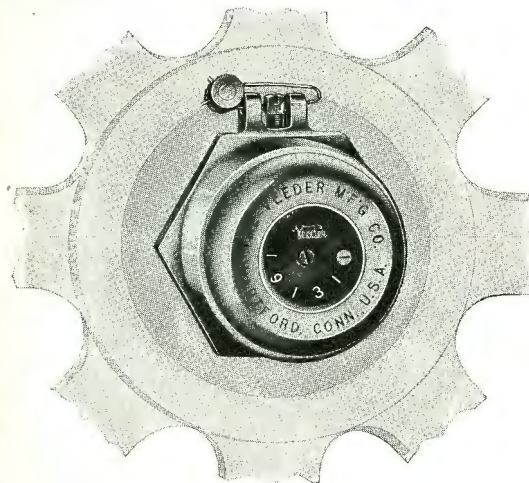


FIGURE 1

PRICE COMPLETE, \$20.00.

In ordering give make, model, year of manufacture of car, and size of wheel.

HARTFORD, CONNECTICUT, U. S. A.

While the foregoing features make this instrument desirable for pleasure cars, they make it **Absolutely Indispensable for Trucks and Taxicabs.** On a truck it tells all you want to know, enabling you to figure an exact (both forward and backward) mileage cost. On taxicabs it furnishes a means of comparing various cabs in respect to their returns and mileage.

A suitable mechanism inside the cap drives the register always in the same direction so that the entire distance traveled by the car, whether forward or backward, is recorded.

There is no way to take the instrument off except by unscrewing it from the hub. This can only be done after the set screw shown in figure 1 has been withdrawn sufficiently to allow the cap to be turned and this cannot be done without breaking the seal. The seal shown in figure 1 is the same as has been used for many years by the railroads and absolutely prevents tampering with the Odometer without the owner's knowledge.

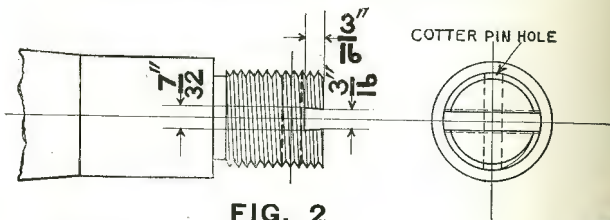


FIG. 2

(Note that slot should be slightly undercut.)

### Directions for Attaching

Odometer may be attached to either left or right front hub. We recommend the left hub because it is less apt to be hit by the curb, posts, etc. Can be used on any wheel having a stationary axle.

HARTFORD, CONNECTICUT, U. S. A.

To attach the Odometer, it is merely necessary to saw a slot, see figure 2, in the end of the spindle and screw the Odometer on the hub. When it is in its proper place, drill a hole in the hub for the point of the set screw with a No. 5 drill, replace the set-screw, and turn it in until the hole in its head comes in line with the holes in the two ears. Then insert the sealing wire and compress the lead seal. Use a short wire for the seal.

If no seal be used, a split pin or wire should be put through screw and ears to prevent the set-screw from shaking out.

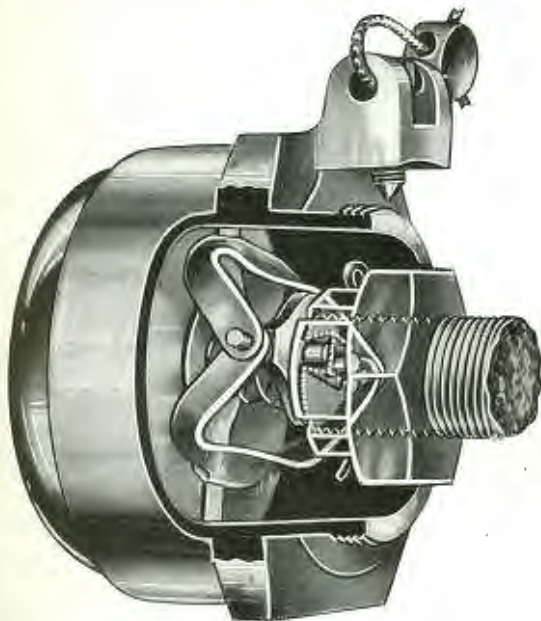


FIGURE 3

HARTFORD, CONNECTICUT, U. S. A.

# Veeder HUB ODOMETER

Form K

For FORD Motor Cars



**PRICE COMPLETE, \$15.00**

In ordering give Model, Year of Manufacture  
of Car, and Size of Wheel

HARTFORD, CONNECTICUT, U. S. A.

## Form K Hub Odometer for Ford Cars

The instrument illustrated herewith has the same mechanism as the Form K described on the previous pages, only is designed especially for the Ford car.

The inaccuracy and lack of durability of various speedometers that have been placed on the market has no doubt resulted in influencing many automobile owners against the use of a speed indicating device.

A reliable Odometer still is and always will be an essential part of a modern car's equipment. On our form K Hub Odometer there are no outside gears to become unmeshed or filled with mud and no flexible shaft or tubing to break. Hence, the true distance traveled both forward and backward is recorded.

HARTFORD, CONNECTICUT, U. S. A.

## Form B Odometer

The Form B Odometer gives the total mileage. It is operated by spur gears which make a positive drive and insure absolutely accurate readings. The drive or hub gear is placed on the inside of the front wheel flange.

The bracket of the Odometer is of a new type and is easily adjusted so that the Odometer gear properly meshes with the drive gear.

The gear on the Odometer is also of new design, having a tooth of twisted form. This type has many advantages over the old style, so commonly used, of cut or milled tooth or fibre gear. It retains the advantage of the thin milled gear (which we formerly used) for cutting the mud, and also has the advantage of the wide face of tooth which gives greater wearing surface and allows for a considerable range of endwise adjustment. Because of its particular form, when in operation the tooth action of these gears is entirely receding. The advantage thus gained reduces the friction and wear of the tooth faces materially.

The Form B Odometers are now furnished with a new style of hardened steel bearing which gives greater life and durability.

HARTFORD, CONNECTICUT, U. S. A.

## FORM B ODOMETER



PRICE, \$10.00 COMPLETE.

HARTFORD, CONNECTICUT, U. S. A.

As regularly furnished, all our Form B Odometers are fitted with a universal type of drive gear. This type of gear with an adjustable bracket constitutes our universal equipment which will fit 90% of all automobiles made today.

With the universal equipment as regularly furnished, the gears are all 10 pitch, (though where a 10 pitch gear is not large enough, we furnish gears of 8 pitch) and in some cases where neither of these will fit, we make special gears to suit.

The regular Form B Odometer has an M 15 P register, an Odometer gear with 30 teeth, and a drive or hub gear with twice as many teeth as the diameter of the front wheel in inches.

For illustration—a 28-inch wheel would have a hub drive gear of 56 teeth; a 30-inch wheel would have a hub drive gear of 60 teeth.

The Form B Odometer is regularly supplied for attaching to the left front wheel but can, when so ordered, be supplied for the right front wheel.

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**In ordering be sure and state the make, model, year of manufacture and size of front wheels of your car.**

## Form D Odometer

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The Form D or dashboard type of Odometer has two registers, a total and a trip. The trip can be set back to zero at will; the total cannot be set back.

Both registers indicate in tenths. The right hand figures, or tenths of miles, are in black with white background. The miles are in white with black background. This arrangement of colors makes the figures very easy to read.

The register is of our new Form H type and is much stronger and more durable than the old style of trip register. The gearing contained in the instrument has larger and wider faces and stronger teeth, and we feel confident in placing this type of register on the market that it is superior to any total and trip register heretofore made.

The register takes up very little space, is placed conveniently on the dash and is driven by a flexible shaft which is attached to a lower gear box, which in turn is fastened to the steering arm in the same manner as the Form B Odometer.

The shaft is made of the finest imported piano wire coiled helically. It runs in a steel

sheathing having ball bearing ends, this is in turn protected by a porpoise hide covering that holds the grease and prevents moisture entering from the outside.

The Odometer is regularly finished in nickel, but we can, when so desired, furnish it brass plated, although we do not recommend this finish, as the very best brass plating is apt to wear away in spots and will not stand the use of polishing preparations.

The Form D Odometer is equipped with a twisted tooth Odometer gear and adjustable bracket, the same as the Form B instrument, a description of which is given on page 8.

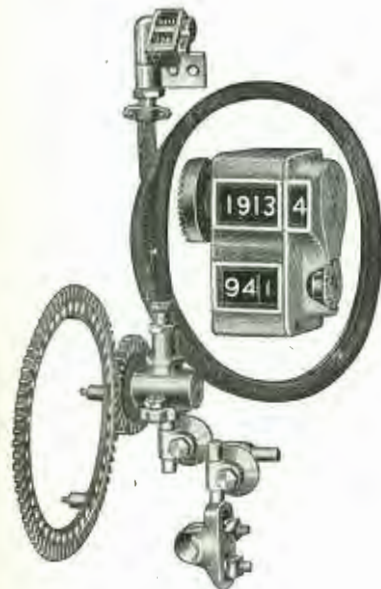
The Form D Odometer, including the flexible shaft, is ball bearing throughout.

It is regularly supplied for attaching to the left front wheel but can, when so ordered, be supplied for the right front wheel.

In ordering be sure to state the make, model, year of manufacture and size of front wheels of your car.

HARTFORD, CONNECTICUT, U. S. A.

FORM D ODOMETER



PRICE, \$20.00 COMPLETE

HARTFORD, CONNECTICUT, U. S. A.



## The Veeder Tachodometer

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The Veeder Tachodometer is a combination of a Speed Indicator or Tachometer with an Odometer, the combined instrument being operated by a flexible shaft from one of the front wheels of the car. The mileage register is the improved Form H described under the Form D Odometer.

The Speed Indicator has many points of superiority over any other. Briefly listed they are: original accuracy, continued accuracy means for adjusting to zero, a very distinct and perfectly steady reading, entire absence of springs or delicate parts, ball bearing throughout, with no chance of binding for want of lubrication, drive above liquid level and consequently no stuffing boxes or leakage, entirely self-contained, a slow rate of revolution for the flexible shaft and great durability.

Of all the various principles on which speed Indicators may be designed, the liquid-centrifugal is the most accurate and reliable; hence,

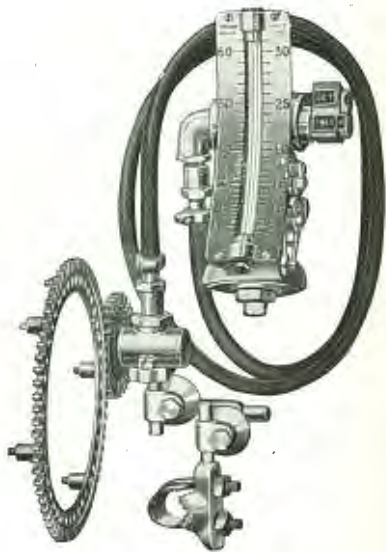
we use this both in our Tachodometers for motor car use and in our Tachometers for accurately indicating revolutions per minute. The liquid is set in motion by a paddle which runs at a speed corresponding to the speed of the car.

The shaft of the paddle wheel stands almost vertically in the body of the instrument. The paddle wheel is at its lower end while its upper end, which is considerably above the liquid level, carries a bevel gear in mesh with a corresponding gear on the main driving shaft. Ball bearings are provided for both ends of the shaft.

Should the level of the liquid for any reason drop below the zero level when the car is standing still, it may be brought up to the zero mark again by a slight turn of the thumb wheel on the right side of the instrument. This wheel controls a displacement plunger by which the level of the liquid may be raised or lowered.

The indicator is curved to a segment of a circle. This form results in a more even spacing of the graduations, and increased scale and indicating space for a given vertical rise. It also places all points on the scale more directly before the eye.

THE VEEDER TACHODOMETER



PRICE, \$50.00.

Complete with attaching fixtures for  
any make of car.

HARTFORD, CONNECTICUT, U. S. A.

Temperature changes, vibrations and ordinary wear do not and cannot effect the accuracy of the Veeder Tachodometer. Variations of spring tension cannot effect the readings because no springs are employed.

The instrument will not give false readings after a few week's use. If the liquid is at zero when the instrument is not running, it is bound to give as accurate readings as when first purchased.

We offer the Veeder Tachodometer as the most accurate and satisfactory combined speed indicator and Odometer on the market.

The method of attaching is the same as with the Veeder Form B and Form D Odometers. In fact, those who already have Veeder Form B and Form D Odometers on their cars, can, in nearly all cases, substitute the Tachodometer without changing attaching fixtures or driving gear.

The lower gear box is ball bearing, and ball bearings are provided at both ends of the flexible driving shaft as well as in the instrument.

The Tachodometer lower gear box is equipped with the twisted tooth style of gear, a complete description of which is given on page 8.

HARTFORD, CONNECTICUT, U. S. A.

The Veeder Tachodometer is regularly supplied with a combination 30 and 60-mile scale. By a simple valve arrangement either the 30 or 60-mile scale can be used. For high speed the 60-mile scale is used. Higher readings, such as 40 and 80-mile combinations or the 50 and 100-mile combinations can be had if desired and so ordered, for which no extra charge is made.

PRICE, \$50.00.

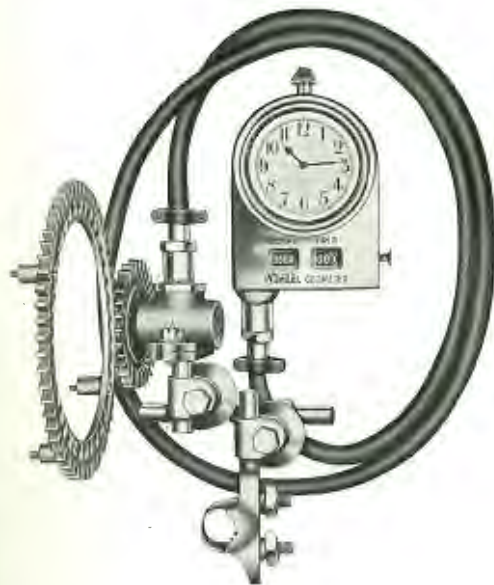
Complete with attaching fixtures for any make of car.

The Veeder Tachodometer is regularly supplied for attaching to the left front wheel but can, when so ordered, be supplied for the right front wheel.

In ordering, be sure to state the make, model, year of manufacture and size of front wheels of your car.

HARTFORD, CONNECTICUT, U. S. A.

CHRONODOMETER



PRICE, \$50.00 COMPLETE.

HARTFORD, CONNECTICUT, U. S. A.

The Odometer and driving mechanism of the Chronodometer are the same as used in the Form D described on the preceding pages. The clock is the famous "Eterna," — stem winding, stem setting, (fifteen jewels.) eight day movement in separate dust-proof case, same being placed in heavy outer case with screw bevel rim. This instrument fastens to dashboard from inside of case.

**In ordering, be sure and state the make, model, year of manufacture and size of front wheels of your car.**

**IMPORTANT!**

When ordering Odometers, Tachodometers and Chronodometers for automobiles, it is always necessary to state the make and model of the car as well as the year of manufacture and size of front wheels.

When it is desired that the mileage of the Odometer add instead of deduct when the automobile is running backwards, we supply an automatic drive mechanism to accomplish this result. This is supplied on our Form D Odometer, Chronodometer and Form J Tachodometers, when so ordered, at an additional cost of \$5.00 each.

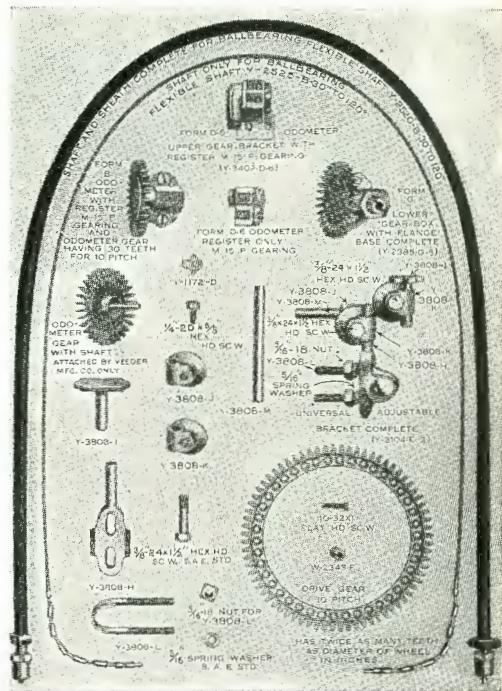
**To Learn the Distance Your Wheel Travels per Revolution.**

It is best, in ordering your Odometer, to be very certain of the distance the left front wheel of your car travels per revolution, rather than to depend upon the size mark on the tire or upon the diameter stated in the catalogue.

Have your vehicle carry an average load and place it on a smooth floor or road; mark the tire and the road under the center of the wheel; then carefully pull the vehicle ahead in a straight line until the mark on the tire again comes under the center of the wheel, mark the ground again opposite the mark on the tire. The distance between the two marks on the ground will be the distance that the wheel travels per revolution.

VEEDER ADJUSTABLE BRACKET

Showing Register, Odometer Gear,  
Drive Gear, Flexible Shaft and  
Sheathing.



NAME OF PART

	<i>Price</i>
Form D Odometer Register Complete.....	\$5.00 each
Form D Odometer Register Complete with upper Gear Bracket.....	6.50 "
Form B Odometer Register Complete with Odometer Gear.....	7.00 "
Form G Lower Gear Box Complete with Odometer Gear.....	6.00 "
Odometer Gear with Shaft (Attached by Veeder Mfg. only).....	1.00 "
Drive Gear (7 Distance Pieces and Screws).....	1.50 "
No. 10-32 x 1 inch Flat Head Screws.....	.02 "
W-2343-F Distance Piece 1/2 inch.....	.08 "
Also furnished in lengths varying by 1/8 inch from 1/4 inch to 3/4 inch	
Y-1172-D Lock Washer.....	.03 "
No. 1/4-20 x 3/8 inch Hexagon Head Screw.....	.02 "
Y-3104-E Adjustable Bracket Complete.....	2.50 "
Y-3808-J Clamp.....	.30 "
Y-3808-K Clamp.....	.30 "
Y-3808-I Odometer Base.....	.50 "
Y-3808-M Rod.....	.15 "
Y-3808-H Bracket Base.....	.30 "
Y-3808-L Clip and Nut.....	.25 "
1/8 Spring Washers.....	.03 "
3/8-24 x 1 1/2 inch Hex. Head Screws.....	.05 "
<b>Flexible Shaft only, for Tachometer and Odometer 30 inch, Ball Bearing.....</b>	<b>2.50 "</b>
(For each additional 10 inch add 50 cents.)	
<b>Shaft only for Tachometer and Form D Odometer 30 inch.....</b>	<b>4.00 "</b>
(For each additional 10 inch add 50 cents.)	

*The Veeder*

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# PRODUCTS

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## CYCLOMETERS

For Bicycles and Motorcycles, to Register the Distance Traveled.

## ODOMETERS

For Pleasure and Commercial Cars and Horse-Drawn Vehicles, to Measure Distance Traveled.

## COUNTERS

To Record Number of Revolutions or Reciprocating Movements. For practically every possible purpose where a count is desired.

## SPEED COUNTERS

For Finding the Revolutions per Minute made by a Shaft or any other Revolving Part.

## TACHODOMETERS

To Indicate the Speed and Record the Distance Traveled, both Trip and Total. For use on Automobiles, Locomotives and Electric Railway Cars.

## CHRONODOMETERS

Combined Clock and Odometer.

## TACHOMETERS

To Indicate Speed in Revolutions per Minute of Shafts, Generators, Motors, etc.

## FINE DIE CASTINGS

Where Large Numbers of Absolutely Uniform Small Parts are Required.

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COMPLETE DESCRIPTIVE CATALOGUES  
SENT ON APPLICATION

**THE VEEDER M'F'G. CO.,**  
HARTFORD, CONN., U. S. A.

C. H. Veeder, President  
H. W. Lester, Secretary

D. J. Post, Treasurer  
E. B. Smith, Asst Secretary