

Warner Auto-Meters

MAGNETIC TYPE

The Aristocrat of Speed Indicators

3 $\frac{3}{4}$ -inch Models

MODEL 50. 3 $\frac{3}{4}$ -inch dial face. This instrument indicates all speeds up to 60 miles an hour; has Total Season Odometer, with a capacity of 100,000 miles, and a direct drive Trip Odometer, with set-back attachment and capacity of 100 miles and repeat. The face of the dial is black, with silver etched figures, and the Odometer figures are white on black—an arrangement that makes them stand out clearly. The large, easily-read mile numbers of the speed dial are black on white. Dial face is protected by a thick beveled French plate glass. Price, \$50.00.

MODEL 50-A. Same as Model 50, but mounted flush-type. (Illustrated.) Price, \$50.00.

MODEL 52. Same as Model 50, but furnished with Tungsten electric light, mounted in a hooded bracket of dial, same as shown in illustration below of Model K-4-B. Price, \$55.00.

MODEL 52-A. Same as Model 50-A, but furnished with electric light.



Model 50-A. Price, \$50.00

Showing flush-type style of mounting



Model K-4-B. Price, \$75.00

4 $\frac{1}{4}$ -inch Models

MODEL K-4-B. 4 $\frac{1}{4}$ -inch Dial Face. This model indicates all speeds up to 60 miles an hour. Has extra large Odometer, consisting of Season Odometer, with a capacity of 100,000 miles and repeat. Trip Odometer, with 1,000 mile capacity, has special reset device. The dials are polished celluloid, reinforced by bronze, and bear extra large numbers in white. Tungsten electric light is so located in a hooded bracket above the dial that it concentrates the light on the speed and distance figures and prevents the escape of any rays to blind the eyes of the driver. Dial face is protected by a thick beveled French plate glass, mounted in a flush-type flange. Complete, ready to attach. Price, \$75.00.

Stewart Speedometer for FORD cars

MAGNETIC TYPE



Model
100

Why consider any other speedometer when you can get a *Stewart* for your Ford car for only \$10

Just think, a Stewart Speedometer, noted for its absolute accuracy and efficiency, being listed as low as \$10.00. Thousands of automobilists have felt that they could not afford to buy a speedometer, but this new low price puts a speedometer in the reach of every car owner.

There is no man who ever drove a car but knows just how uncertain his costs, speed and mileage has been, unless his car was equipped with a Stewart Speedometer. It is virtually an insurance policy behind your tire guarantee—a real checker of your gasoline consumption—a positive and friendly warning against over-speeding and the consequent fines in police courts—a help in following guide books when traveling over new routes, and thereby preventing loss of time and other expenses through the mistakes of getting on wrong roads.

Don't take chances with any make of speedometer that a dealer may try to sell you. The only reason he tries to sell you any other speedometer than the Stewart Magnetic Type Speedometer is because he will make more profit on the other kind. The real value of a speedometer is indicated by what the dealer pays for it. A dealer will sell you a Stewart Speedometer at exactly the same price of any other make on the market, but a Stewart Speedometer costs the dealer wholesale more than any other instrument. And the reason why the Stewart Speedometer costs the dealer more is because there is more value, more real worth in a Stewart instrument.

An article of merit always costs the dealer more money, but to the one who buys it it is always cheapest in the long run, because it lasts—because it can be depended upon—because it is accurate—because you are not always having trouble with it, and continually having to take it back to the dealer for repairs, all of which costs you labor, time, express charges, etc.

When rightly considered a Stewart Speedometer should be the first thought in the purchase of any car, because it keeps the costs of automobiling down.

All Stewart Speedometers are made upon the magnetic principle. There is only one moving part, as against from 8 to 12 different parts in other types of instruments, all rubbing and wearing against each other. There is practically no wear whatsoever to the Stewart Magnetic Type Speedometer.

Model 100. Finished in handsome jet lacquer, with brass trimmings to match your Ford car. Complete equipment, all ready to install. Anyone can put it on

\$10

Stewart Speedometers

MAGNETIC TYPE



Regular Model

Model 102

Has Rotating Speed Dial, 60-mile capacity—Stewart Odometer, consisting of 100-000-mile Season Register and 100-mile Trip Register. Trip Register can be easily reset to any tenth of a mile.

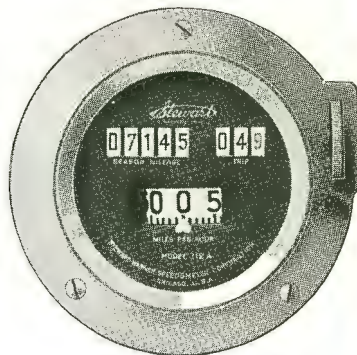
Price **\$25**

Model 102-F. This is the same as Model 102, but mounted in a flush-type flange.

Price **\$25**

Model 26. This is the same as Model 26-A, but in regular mounting. Price . . . **\$20**

Stewart Speedometers are made with jeweled bearings, polished steel magnet, silver-etched 3-inch dial face, French plate dial glass.

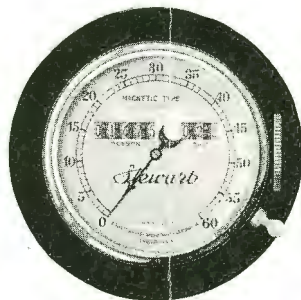


Flush-Type Model

Model 112-A

Similar to Model 102, but furnished in a flush-type flange and with integral sleeve.

Price **\$25**

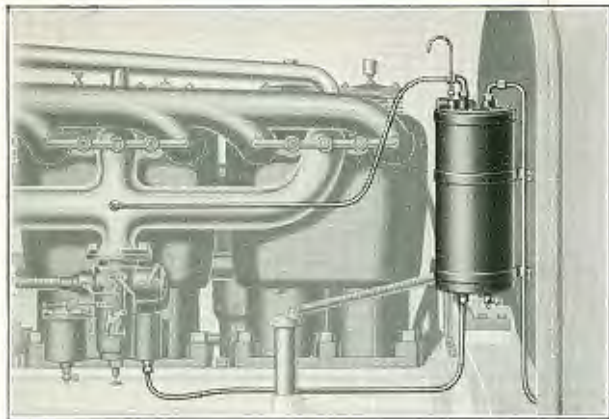


Model 26-A
Flush-Type

Pointer Type Models

Model 26-A. This model is made especially for those who prefer a "pointer" indicator instead of a rotating dial. Built on Magnetic principle. 3-inch dial face. Price **\$20**

Stewart Vacuum Gasoline System



What it is and does—

It is a small tank, installed under the hood on the dash or engine, and connected to the manifold, carburetor and gasoline supply reservoir.

The suction of the engine through the manifold draws the gasoline from the rear reservoir to the small tank under the hood, from which the gasoline falls in a positive, even flow to carburetor.

No preliminary hand-pumping air into gasoline tank before starting car. No depending upon a motor-driven air pump to keep up the pressure after you start.

No air gauge to watch; no air lines to keep tight; no air tight connections necessary anywhere.

Saves 10% to 15% gasoline. No forcing gasoline through carburetor wastefully

In a test sanctioned by the A. A. A., a Cole car, equipped with a Stewart Vacuum Gas Tank showed better than **15 per cent increased mileage per gallon** than when using pressure feed.

Another Cole car, equipped with its original forced feed gasoline system, was sent over a measured route and consumed $13\frac{1}{2}$ pints. The car was immediately equipped with a Stewart Vacuum Gas Tank and sent over the same route and consumed but 11 pints; **an increased mileage per gallon of over 15 per cent.**

The Oakland "37" covered 28.7 miles on one gallon of gasoline when equipped with Stewart Vacuum Gasoline System.

In the phenomenal run of the Mitchell Reliability car, which made 7,518 miles in thirty days, the Stewart Vacuum Tank was under the **sealed bonnet** and required absolutely no attention. To equip this Stewart Vacuum Tank on a car that was to undergo the

most hazardous test any automobile was ever put to shows the faith that the Mitchell people had in it—a faith that was justified by its wonderful performance.

The Stewart Vacuum Gasoline System eliminates every single drawback and shortcoming of both the pressure and gravity methods of supplying gasoline. Supplies gasoline to carburetor unflinchingly, under all conditions, even on steepest grades, because of its being located so close to, and above, carburetor.

The Stewart Vacuum Gasoline System does away with all need of pressure—eliminates power pressure pumps, hand pressure pumps, air gauge on dash, extra line of piping in rear tank, gasoline filter, and all labor of installing all this equipment; does not require air tight supply tank nor air tight filler caps. The carburetor may be placed high on the engine, where it is easily accessible, and where heat of engine greatly assists carburetion.

The Stewart Vacuum Gasoline System can be installed on your present car—whether old or new—at any Service Station, or by any garage man

\$10



Stewart Starter for Ford cars

Cheapest to install—simplest and most durable in operation—lightest in weight—easiest to be operated

The Stewart Starter is a compressed air Starter. The highest engineering authorities have always conceded that compressed air starters are superior to all other types. The universal use of compressed air power can be no better illustrated than by the air brake systems installed on every railway and electric car and which are such wonderful successes.

The Stewart Starter is absolutely automatic in operation. It is always ready. Simply press the pedal with your foot, and a charge of compressed air applies its power at the end of the crank shaft, and spins the engine exactly as you would crank it by hand. There is no action that is at all detrimental or foreign to the general working of the motor.

A most efficient air pump maintains a pressure of 200 pounds in the air storage tank. An automatic cut-off prevents any pressure above this point. (The tank is tested to stand 600 pounds pressure to the square inch.)

The air control valve on the Stewart Starter is of remarkable design and construction, and will hold compressed air under all conditions.

The Stewart Starter has the fewest number of parts of any starter built. Unlike a battery, there are no delicate parts employed in the Stewart Starter to get out of order.

The Stewart Starter adds only 42 pounds to the weight of a car. And this weight is evenly balanced in the center of the car. This light weight and balance is a great advantage over any other starter, because extra weight adds to tire expense, as well as to extra consumption of fuel.

A special connection, with hose, gauge, etc., is provided so that the compressed air may be used for inflating tires. This is another great advantage with the Stewart Starter, because your tire costs are saved by keeping tires properly inflated at all times.

The Stewart Starter is the cheapest to install. It is the lightest in weight. It is easiest to operate. Best of all, it is sold at a price (\$40) practically one-half that of any other Ford Starter. And any Ford owner can easily install this Starter himself.

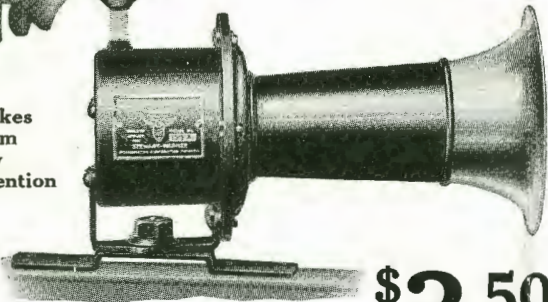
**Complete, ready for any
FORD owner to install
right on his FORD car** **\$40**

Stewart Warning Signal

(Hand-Operated)



"Makes them pay attention"



\$3.50

The Stewart Warning Signal is superior to any hand-operated signal made, we don't care what the price may be. The first day it came on the market it met with a tremendous success. Its sales doubled and redoubled again, until our production got up, in the middle of the season, as high as 3,000 warning signals a day. This indicates the great demand for it. And this great demand indicates the quality of the signal. People do not stampede for inferior instruments; and when the stampede for the Stewart Warning Signal continues for weeks and weeks, and the orders get way beyond our output, then you may know that THE STEWART IS UNMATCHED.

Stewart Warning Signal will outlast the car

On the Stewart Warning Signal all parts are riveted or bolted, which insures long life, regardless of the amount of usage it receives. No soldered parts to work loose by vibration.

The gears on this Stewart Warning Signal are not light, flimsy affairs, but are case-hardened. Each gear is supported on a shaft, both ends of which run in hardened steel bushings. All this means greatest ease of operation.

One complete pressure of the plunger produces 192 distinct sound impulses in the large diaphragm. The result is a wonderfully effective warning signal—a full, round, hearty tone, deep and penetrating, and surpassing anything that has ever been put on the market.

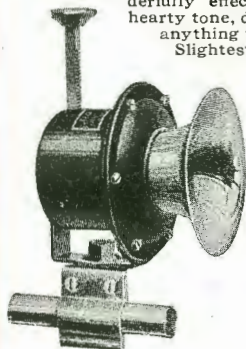
Slightest pressure on plunger with hand, arm, elbow, or finger produces a warning blast "that makes them pay attention."

Some horns you lubricate by simply squirting oil through a small hole. But in this Stewart Warning Signal there is an oil-soaked felt pad which rubs against the bearings and wheels continually — an oiling method that is absolute perfection.

Motorcycle Model

Has shorter projector and special M. C. Brackets

\$3.50



Model 115-A

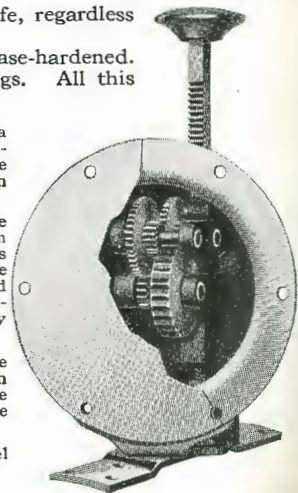
The Stewart Warning Signal has a double supporting bracket. No matter what the pressure may be on the plunger, it does not affect or weaken the bracket.

The Stewart bracket is also made with a swivel—one part fastens on the rail of the car and follows its shape, while the part holding the horn swivels on this rail bracket and can be so adjusted that the horn always points straight ahead directly in front of the car.

The Stewart is the one dependable warning signal better than any horn ever manufactured—and yet it is the first to be offered at the popular price of \$3.50.

Finished in either black and nickel (or black and brass for Ford cars).

Also Models for Trucks



The Case-hardened Gears are double-supported and run in Steel Bushings.

Stewart Warning Signal

(Motor-Driven)

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Do not get the idea from the price (\$6) of this new Stewart Motor-Driven Warning Signal that it is in any way to be compared with any "electric horn" offered at around this same price. This new Stewart, although listed at only \$6, is better than any \$10 electric signal ever put on the market. It is better than any \$15 signal ever offered. We believe it to be, in every respect, better than warning signals which have been offered at around \$35.

The Stewart is superior to all others; first, because its motor is entirely enclosed in its own case. The shaft can never get out of alignment. It is the most economical in amount of current required to run it. Runs at highest speed with the very smallest amperage. Brushes of an especially large size. Rear bearing provided with ball thrust. Friction eliminated. Motor will not stick, due to superior bearings and ample lubrication. Large sized oil well keeps shaft always lubricated. No oil gets into rest of mechanism. Weighs half as much as other motor-driven warning signals, sound considered.



Not an "electric horn" with only a common vibrator or "buzzer," but, a WARNING SIGNAL that contains a REAL MOTOR

Many car owners have not learned of the vast difference between the so-called "electric horns" and a motor-driven warning signal. They have been dissatisfied with "electric horns" which have been sold and offered to them. This is because of the fact that most of the so-called "electric horns" on the market are no more than common electric buzzers or vibrators. Unscrupulous dealers offer these so-called "electric horns" and give you to understand that they contain a regular electric motor.

Don't be deceived—ask for the Stewart Warning Signal, which is made with a REAL MOTOR.

A big Push Button that sticks up like a "mushroom," and which can be operated by the slightest touch of the hand, arm, elbow or finger.



Cut shows actual size of Button.

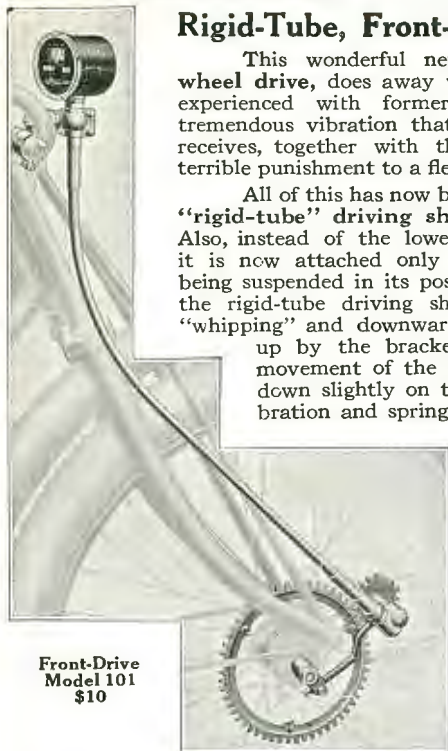
Stewart Motorcycle Speedometers

Rigid-Tube, Front-Wheel Drive, Model 101

This wonderful new motorcycle speedometer, front-wheel drive, does away with all the troubles that have been experienced with former front-wheel drive models. The tremendous vibration that the front wheel of the motorcycle receives, together with the action of the spring fork, was terrible punishment to a flexible shaft.

All of this has now been obviated by the use of the new "rigid-tube" driving shaft in place of the flexible shaft. Also, instead of the lower bearing bracket being held rigid, it is now attached only to the front wheel axle, the pinion being suspended in its position on the sprocket by means of the rigid-tube driving shaft. As now designed, all of the "whipping" and downward movement on the fork is taken

up by the bracket working free on the axle. Any downward movement of the fork causes the solid tube to push the pinion down slightly on the sprocket. This virtually makes a free connection, and all of the vibration and springiness that any motorcycle will ever experience can have absolutely no effect upon this new style of "Rigid-Tube" driving shaft equipment.



Front-Drive
Model 101
\$10



Model
101
\$10

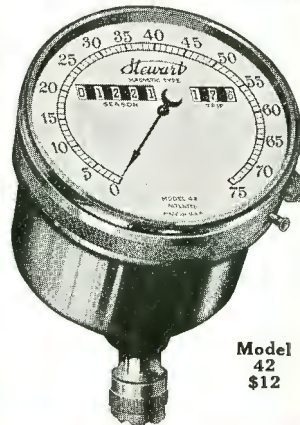
The Famous Rear-Wheel Drive, Model 101-A

The most ruggedly built and equipped motorcycle speedometer made. Furthermore, it is more firmly attached than any other motorcycle speedometer in existence. It is absolutely unaffected by vibration or road shocks.

Fastened to the rear wheel hub is a big, solid cast sprocket, as strong as any part of the machine. A "rigid bracket" holds the angle joint to the frame.

The Speedometer is mounted on the frame back of the handle-bar and at such an angle that it is read from the saddle with absolute ease.

The full flexible shaft is carried along on, and is securely attached to, the frame. It cannot work loose



Model
42
\$12

and get in the rider's way. It is always in the best position for correct operation.

Model 101. (Illustrated above). Has rotating Speed Dial, 2½-inch dial face, 75-mile capacity—Stewart Odometer, consisting of 10,000-mile Season Register and 100-mile Trip Register. Price, complete with front-drive equipment, \$10

Model 101-A. Same as Model 101; but with rear-drive equipment. Price, complete \$10

Pointer Type Models

Model 42, equipped with rigid-tube, front-wheel drive. This model has Hand Indicator, 75-mile, 3-inch dial face, regular Stewart Odometer, consisting of 100,000-mile Season Register and 100-mile Trip Register. Price, complete with driving equipment \$12

Model 42-A. Same as Model 42, but equipped with rear-drive. 90-degree integral sleeve. Price, complete with driving equipment \$12

Let the *Stewart* Tire Pump do your hard work—

With an engine right beside you that does all the other work, why break your back with a hand tire pump?

The Stewart power pump, operated by your engine, quickly fills any size tire in a few minutes. Easily installed by anyone, on any car—old or new.

A real pump for only \$12.00. Mounted right on the motor. Simply throw over the lever and the pump operates instantly. Throw out the lever when tire or air-starter is sufficiently filled up. Means keeping your tires up to proper inflation pressure.

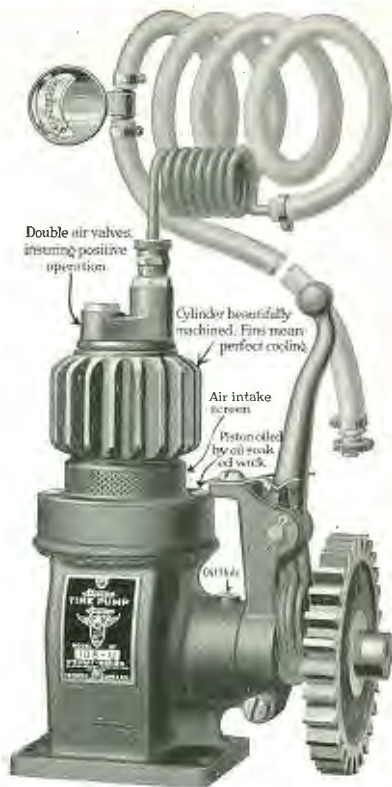
The Stewart Tire Pump is not only the most perfect and most efficient pump built, but is it also cheaper in price than even poorly built pumps. Cylinder is a finely machined job. It is air-cooled, with projecting fins on the cylinder to aid the cooling. Double air valves are provided, which means that pump is efficient to the last pound of pressure.

There are no rubber nor leather packings to wear and cause leakage. Its capacity is such that it will fill a 36-inch x 4½-inch tire in less than five minutes. Piston rubs against an oil-soaked wick, which supplies every bit of oil it needs, and yet prevents excessive oiling. This wick projects outside, where oil is dropped on it through two small oilers. Crank shaft is provided with a separate oiler. The bottom of the crank case is open, so that in case there should be the least amount of free oil it will immediately drop out. None can be carried up through the air connection and into the tires.

Remember, every flat tire has got to be blown up **some-where—some-time—by someone.** Why not let a Stewart Tire Pump do it for you?

In ordering, state year, model and make of car pump is wanted for. Price, with air-pressure gauge and 15 feet of high-grade hose, with bracket and gears complete, ready to install right on your car

\$12



Stewart Revolution Indicator

for Motor Boats

Tells you at a Glance what Speed you are getting out of your Motor



With a Stewart Revolution Indicator on your Motor Boat you KNOW what your speed is—you are always able to accurately check the necessary and vital revolutions. You know at once whether your motor is working to its full capacity number of R. P. M. or not. And if not, then you know what must be done. No motor boat should fail to be equipped with a Stewart Revolution Indicator, so that the precise motor efficiency at any and all times may be—not guessed at, but—**accurately and positively known.**

The Stewart Revolution Indicator embodies the same identical principle and constructive design as in the highest grade instruments we make for automobiles. The instrument may be mounted directly in front of the driver, where it can be read without the slightest difficulty, and instantly, or it can be mounted anywhere else on the boat desired.

Read the following portion of a letter by a motor enthusiast:

“Three years ago we made a trip up the coast of Maine, and ran for two days in a heavy fog among the numerous islands there, taking our time of departure from various buoys and other government navigation marks and running to the next one wanted by chart and compass, utilizing the Revolution Indicator to regulate the number of engine revolutions. For instance, 280 revolutions gave us an exact speed of ten miles per hour—one mile in six minutes. We measured off the distance between two points and ran for the necessary number of minutes and never failed to pick up buoys and other marks.”

Your automobile is equipped with an absolutely accurate **Speedometer** to tell you just how fast you go—what your gasoline consumption is, and to keep tab on your tire mileage. For very similar reasons your motor boat also requires a check, and should be equipped with a Stewart Revolution Indicator.

If, during some test, your engine has shown a speed of 1500 R. P. M., you know what you always expect it to do thereafter; but when you are, perhaps, in the middle of a race, how can you tell that your motor is working up to **concert pitch**?

The instant you detect the slightest dropping off in the R. P. M. you should know that something must be done to get it back to its capacity number of R. P. M.

But, without any positive accurate instrument to prove it to you, how can you tell when the R. P. M. dropped from 1500 down to 1400? You may **think** you are going fast enough to win, but, **ARE YOU SURE?**



This illustration shows Revolution Indicator mounted on dash and connected to propeller shaft

Model 325—Stewart Motor Boat Revolution Indicator. Includes complete equipment and shaft, up to 5-foot length. Longer lengths, 50c extra per foot. Capacity from “0” to 1500 R. P. M. Speed dial numbered by hundreds, graduated by twenty-fives. Price **\$15**

Model 325-A—Stewart Motor Boat Revolution Indicator has rotating dial indicating up to 600 R. P. M. Speed dial numbered by fifties, graduated by tens. Calibrated for direct drive of 1 to 1 ratio. Equipped with 1 to 1 swivel joint and two pulleys of equal diameter. Price, **\$15**

Stewart Counters

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Counters to fit any machine and to meet every requirement, no matter what it is

Stewart Counters and Recorders can be installed on any machine, or any place (such as turn-stiles) where the number of revolutions, or strokes of a machine, are wanted as a record.

There are hundreds of uses to which these counters can be employed. "Factory efficiency" and "manufacturing costs" are now receiving so much attention and adjustment, that many thousands of concerns are installing counters and recorders on as much of their machinery as it is possible to put them. It is not merely a matter of paying by the piece, for many concerns that do not pay for piece-work are installing these counters on all machines of the same kind, so as to establish a "standard" as to what such a machine should do per hour, and then, by proper methods, bring every other like machine (or operator) up to that "highwater" mark, or degree of efficiency.

Stewart Counters are operated by a reciprocating drive that cannot possibly fail. There are no thin metal discs, nor anything else of cheap construction used in its make-up. The drive consists of **steel ratchet and pawl**, making the strongest, sturdiest, and best built counter on the market. Each dial is locked, except at the precise instant of its registering. Those dials not registering remain locked. Thus it is impossible for the dials to slip, because of a jar or jolt of any kind. They cannot make a single false movement.



Model 350-A, \$7 with re-set feature

Model 350-B, \$5 without re-set feature

Model 350-F. Same as Model 350-A, but with lever on left-hand side \$7

Stewart Machine Counter

Illustrated Above

Records number of revolutions or strokes of a machine up to 1,000,000, and then repeats. Model 350-A can be re-set at any instant back to "0." Knob also acts as key, and when removed prevents any tampering or attempt to falsify records. The case is sealed and cannot be opened.

Stewart Counters are also made in other types of Hank Counters and Pick Counters for use on cloth weaving looms.

Stewart Hub Odometer

Fits any make of Truck or Electric Car



This shows Model 117-B, Stewart Hub Odometer fitted in the hub cap of an Electric Car

There is not a concern using even a single truck which should not equip that truck with a Stewart Hub Odometer. Mileage is the basis of all haulage efficiency. In order to determine the cost of maintaining your truck, you must know exactly how many miles it travels. This will enable you to figure the pound-per-mile cost, which is the basis upon which you figure the comparative cost of haulage—truck service vs. horse service, as well as one truck with another truck and thereby bring your delivery service up to a definite standard of efficiency and economy.

The Stewart is the one Hub Odometer which you can absolutely depend upon to keep an absolutely accurate record of the distance a truck travels, no matter what distance a truck travels. Registers up to 99,999 miles, and repeats.

The Stewart Hub Odometer is operated by an improved reciprocating drive and cannot possibly fail. Every turn of the car wheel is registered with absolute accuracy, no matter whether you drive backward or forward. The Odometer is so constructed with a double back that it is absolutely water-, oil- and mud-proof. This was proven by a test made recently in which the Stewart Hub Odometer was mounted in a Hub Cap which had previously been filled with thin oil (not thick oil or heavy grease). It was then driven until the Odometer showed a total mileage of 17,438 miles. At the end of this test, not a particle of oil had gotten inside of the instrument. The sturdy construction of every part makes the Stewart Hub Odometer unailing in accuracy in operation under every possible condition of service.



An interior view of the Stewart Hub Odometer. Note its simplicity and strength. Also note how the driving mechanism is completely encased, keeping out all oil, dust, mud and water.

Price, including Hub Cap to fit any make of Truck or Electric Car \$10