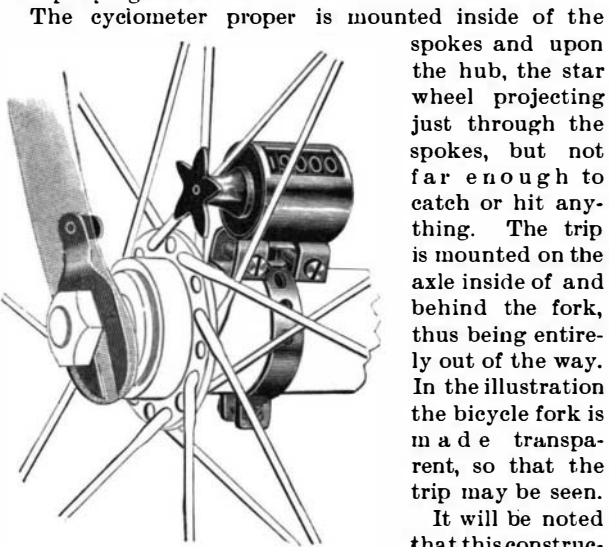


**NEW METHOD OF MOUNTING CYCLOMETERS.**

One of the causes which has led to many riders dis-  
carding their cyclometers, much against their inclina-  
tion, is the fact that they are easily broken off when  
the wheel is put into a rack or stacked up with  
others, or become bent so that the trip does not en-  
gage and the record is lost.

Having in mind these objectionable features of the  
cyclometer in general, the New Departure Bell Com-  
pany have introduced the cyclometer shown in the ac-  
companying illustration.



**NEW METHOD OF MOUNTING  
CYCLOMETERS.**

The cyclometer proper is mounted inside of the  
spokes and upon the hub, the star  
wheel projecting  
just through the  
spokes, but not  
far enough to  
catch or hit any-  
thing. The trip  
is mounted on the  
axle inside of and  
behind the fork,  
thus being entire-  
ly out of the way.  
In the illustration  
the bicycle fork is  
made transparent,  
so that the trip  
may be seen.

It will be noted  
that this construc-  
tion at once re-  
moves all source  
of danger to the  
cyclometer and affords the rider the means of keeping  
his mileage correctly without danger from breaking or  
mischievous handling.

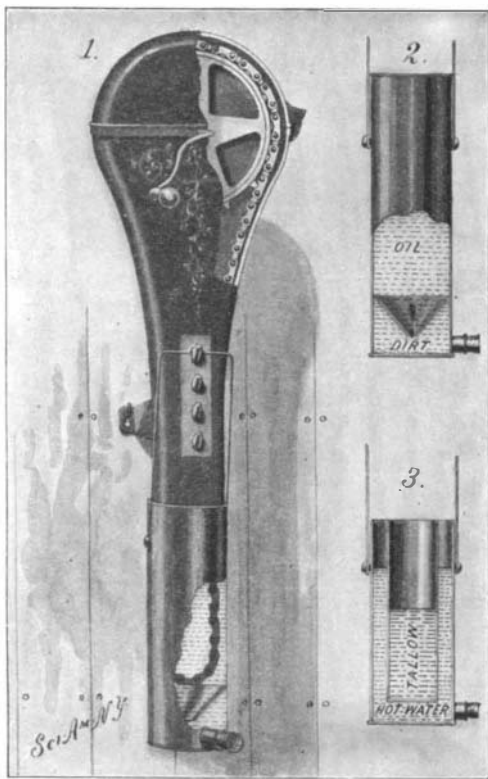
Every gear of this cyclometer is machine-made and  
finished accurately to gage. No soft metals or cast  
parts are used. None but the best hard brass and  
special nickel silver enters into its manufacture.

**A MECHANICAL BICYCLE-CHAIN CLEANER.**

The ordinary method of cleaning a bicycle chain by  
means of kerosene has its disadvantages, chief among  
which may be mentioned the lack of any means for  
"filling" the chain after having been cleaned, so that  
no dirt shall enter the joints. A mechanical chain  
cleaner, made by the American Bicycle-Chain Cleaner  
Company, 106-108 Beekman Street, New York city,  
provides a means whereby the links can be properly  
"filled" and lubricated after having been cleaned.

The chain cleaner in question comprises a receptacle  
having a hinged cover, two cups which can be at-  
tached to the receptacle, and a sprocket wheel mounted  
in the upper part of the receptacle and operated by a  
crank.

Of the two cups, one is designed to contain kerosene  
and the other tallow. The kerosene cup is provided  
with a false bottom having a hole through which the



**A MECHANICAL BICYCLE CHAIN CLEANER.**

dirt gravitating from the chain may pass. The tallow  
cup is provided with an outer and an inner compart-  
ment. Within the inner compartment tallow is placed,  
which is melted by hot water poured into the outer  
compartment.

The chain, after having been removed from the  
bicycle, is hung upon the sprocket wheel in the upper  
part of the receptacle. The kerosene cup is then  
hung in place, so that the lower portion of the chain is

immersed in the oil. By rotating the sprocket wheel  
rapidly, the dirt will be removed from the chain and  
will gravitate through the false bottom of the cup.  
When the chain has been cleaned, the kerosene cup is  
removed, and the tallow cup substituted therefor.  
The sprocket is then turned again to "fill" and lubri-  
cate the chain. After having been removed from the  
hot tallow the chain is hung up to cool.

Thus "filled," the chain is protected against the ad-  
mission of dirt by a coat of tallow which remains in  
the joints for a considerable time.

The manufacturers have subjected their device to  
severe tests. Seventeen links of a chain became eigh-  
teen inches long after three thousand miles had been  
ridden without cleaning, graphite and oil being used to  
lubricate the links; while seventeen links became only  
seventeen and three-sixteenths inches long after a ride  
of fifteen hundred miles, when the chain cleaner had  
been used.

**Bicycles for Firemen.**

Radical changes are being made in the fire system of  
Washington, D. C. The most important is, without  
doubt, the mounting of firemen on bicycles. Commis-  
sioner Wight, noting the success which has attended  
the formation of police bicycle squads, decided to also  
mount a certain number of firemen on bicycles. At  
each engine house a fireman was selected to ride a bi-  
cycle. Whenever his company is called out he precedes  
it to the fire. A man mounted on a bicycle can make  
much better time over the perfect asphalt streets of  
Washington than a heavy fire engine drawn by horses.  
Every second is important in a fire, and in many cases,  
when lamps are overturned or draperies catch fire, the  
presence of an experienced man with the necessary ap-  
pliances might prevent disastrous fires by attacking the  
blaze in its incipient stage. It is estimated that fire-  
men on bicycles are able to reach the fire on an average  
of three minutes before the apparatus, and where four  
or five companies respond to a fire an equal number of  
trained men would be at the point of danger at about  
the same time, and might often accomplish a great deal  
before the engine and ladder companies arrive. Each  
bicycle fireman will carry a small chemical fire exting-  
uisher upon his back, and he may also carry a light  
pick.

Among the other innovations which have been intro-  
duced is the use of a megaphone for giving orders, tak-  
ing the place of the old firemen's trumpet. Since these  
novel features have been introduced the Commissioner  
has received many sensible suggestions, one of them  
being for a chemical fire extinguisher of considerable  
size to be carried on a duplex bicycle propelled by two  
men. Such an arrangement could also carry a scaling  
ladder and picks. An automobile chemical fire exting-  
uisher and ladder cart would be particularly desir-  
able in either city or country, especially in the latter,  
where horses are not readily obtainable at the moment  
of a fire. No town is so poor that it could not afford  
at least one piece of automobile fire apparatus. It  
would be ready at a moment's notice to go immediately  
to the scene of danger, would cost nothing for main-  
tenance, and, with proper inspection, there would be  
no danger of its giving out at a critical time. Other  
suggestions for improvements in fire fighting is a small  
telephone outfit to be carried on the backs of firemen.  
As the fireman dashes into the building the wire could  
be unwound automatically from the reel, and he could  
readily communicate with the chief on the ground, so  
that if there were any danger of a wall or floor falling,  
the firemen could be notified. Of course, it might be  
said that the wires would be injured by the fire itself,  
but there are many occasions on which firemen do most  
of their work from adjacent buildings, where there would  
be no danger of the wire being destroyed or even of the  
insulation being burnt off.

**A NOVEL STIRRUP-PEDAL FOR BICYCLES.**

A stirrup for bicycles has been patented  
by Carl F. Kabisch and Raphael B. Garcia, 95 Broad  
Street, New York city, which is designed to enable a  
rider to exert greater power on the downstroke than  
would be possible if the ordinary form of pedal were  
employed, and to obtain a better control of the wheel  
when back-pedaling.

The stirrup is pivoted on the pedal-pin of the crank  
by means of a sleeve swinging on ball-bearings. What-  
ever may be the position of the crank, the stirrup will  
always hang vertically.

The foot on the downstroke exerts force upon the  
bottom of the stirrup, and on the upstroke the foot  
will bear against the pedal-sleeve. Power is therefore  
applied on both up and down strokes. It is claimed  
for the stirrup that it dispenses with the necessity of  
toe-clips; that high knee-action is overcome; and that  
in back-pedaling the rider is enabled to stop his wheel  
more quickly than would otherwise be possible. From

Fig. 1 it is evident that the crank can be made  
shorter than usual, because the stirrup-pedal being  
always in vertical position, the length of the upstroke  
is that of the crank and the length of the downstroke  
that of the crank plus the depth of the stirrup. It fol-  
lows, therefore, that the path of the foot is elliptical,  
thus enabling the rider, as before mentioned, to apply  
more power than would otherwise be possible.

**A SIMPLE BICYCLE-SUPPORT.**

The subject of the accompanying illustration is a bi-  
cycle support, so constructed that, when not in use, it  
may be folded closely against the bicycle-frame.

Fig. 1 is a view of a bicycle with the support at-  
tached. Fig. 2 represents the lower brace of a bicycle  
with the support in closed position.

The support comprises a tube in which a rod tele-  
scopes. The tube has a longitudinal slot with offset  
slots at the ends in which a pin on the rod is capable  
of engaging. When the pin is in the lower offset slot,  
the parts are held rigidly in supporting position. When  
the support is folded against the frame, the pin is



**WARD'S BICYCLE-SUPPORT.**

turned into the upper offset slot to prevent an acci-  
dental outward movement of the rod.

The support is pivoted to the bicycle by means of a  
yoke on the tube, which yoke embraces the bicycle-  
frame and enables the support to be swung out of op-  
erative position.

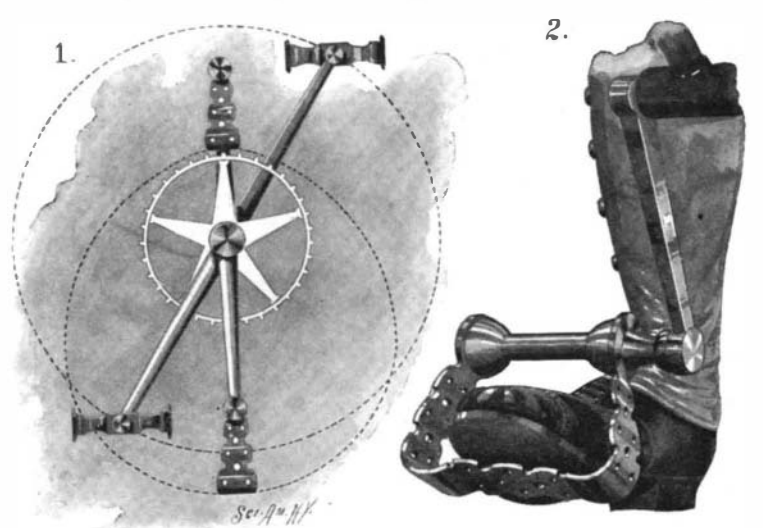
To the forward part of the lower brace a second yoke  
is pivoted, which serves the purpose of preventing the  
turning of the front wheel. This yoke is so connected  
by means of a wire with the support-tube that, when  
the support is swung into operative position, the yoke  
will be made to embrace the front wheel, and, when the  
support is folded up against the lower brace, the yoke  
will be swung out of engagement with the front wheel.

In order to hold the support against the frame, spring-  
clips attached to the lower brace are employed.

The inventor of the device is Frank J. Ward, of  
Fitchburg, Mass.

**Arrival of the "Somers."**

The torpedo boat "Somers" arrived in New York



**A NOVEL STIRRUP PEDAL FOR BICYCLES.**

on May 2, on the Atlantic Transport Line steamship  
"Manhattan." We have already referred to a large  
number of accidents which have occurred to the  
"Somers." She will be taken to the Brooklyn navy  
yard, where an attempt will be made to put her in  
an effective condition. The "Somers" has a single  
screw and is 156 feet long; her beam is 17 feet 6 inches  
and she draws 4 feet 6 inches of water; she registers  
145 tons and has two smokestacks, a conning-tower,  
and one torpedo tube; she mounts no guns.