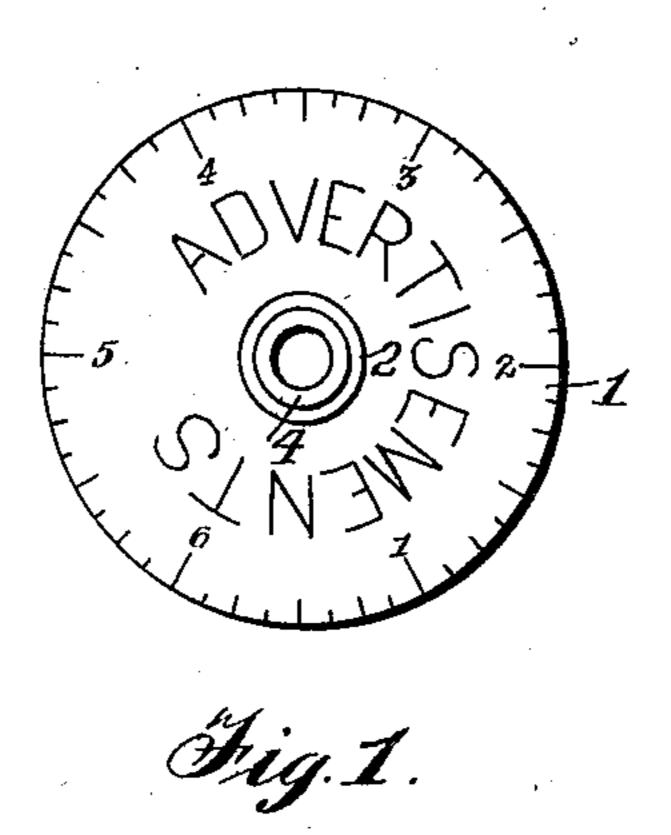
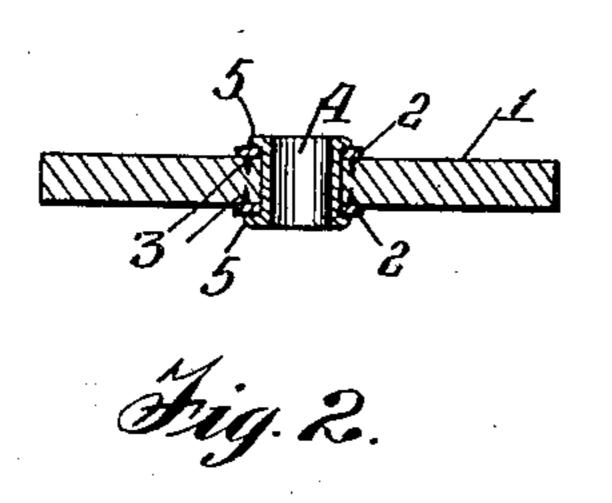
## I. L. DAVENPORT. MEASURING INSTRUMENT. • APPLICATION FILED AUG. 18, 1908.

925,082.

Patented June 15, 1909,





Witnesses

F. G. Campbell Thomas V. Sullivan Peace L'Davenport

By Commely Bross attorneys

## UNITED STATES PATENT OFFICE.

ISAAC L. DAVENPORT, OF CAMDEN, NEW JERSEY, ASSIGNOR OF ONE-HALF TO FRANK A. CAVANAGH, OF ASHBOURNE, PENNSYLVANIA.

## MEASURING INSTRUMENT.

No. 925,082.

Specification of Letters Patent. Patented June 15, 1909.

Application filed August 18, 1908. Serial No. 449,106.

To all whom it may concern:

Be it known that I, Isaac L. Davenport, a citizen of the United States, residing at Camden, in the county of Camden and State 5 of New Jersey, have invented certain new and useful Improvements in Measuring Instruments, of which the following is a specification.

This invention has relation to measuring 10 instruments and has for its object the provision of a novel instrument for linear measurement which will be of simple and inexpensive construction and which can be easily carried in the pocket and readily employed 15 in making measurements on straight or curved surfaces.

In carrying my invention into effect; I provide a flat disk of certain circumference, say six inches, and I place graduations and 20 numerals on one or both flat sides of the disk adjacent to the edge indicating inches and subdivisions of inches and I provide the disk with a loose central hub by means of which the disk can be held between the 25 thumb and forefinger and rolled along the surface to be measured.

In the accompanying drawing in which I have illustrated my invention: Figure 1 is a side elevation of the complete instrument. 30 Fig. 2 is a central sectional view of Fig. 1.

The instrument as shown in the drawing is composed of a flat circular disk 1 of any suitable material such as wood, card board, paper fiber, celluloid or metal and of a 35 definite and exact circumference say, for instance, of a circumference of exactly six inches. The disk 1 has radially disposed graduations on one or both sides adjacent to its edge, these graduations designating inches and fractions of an inch and being numbered as shown. The disk 1 has a hole in its center and on each side of this hole is arranged a washer 2, these washers being secured to the disk in any suitable manner, 45 preferebly by means of small pins 3 or they may be glued, cemented, or otherwise attached to the disk if desired. A hollow hub 4 extends through the hole in the center of the disk 1 and through the washers 2 and be been bis 105 has a flange 5 on each end, this hub fitting | 1. In a measuring instrument the combiloosely in the hole and in the washers so as to turn easily therein.

I ment while the disk 1 is being rolled along the surface to be measured, or the hub can be held during the measuring operation between the thumb and forefinger of one hand.

In using the instrument, the flanged ends 60 5 of the hub 4 are grasped between the thumb and forefinger or a stick, lead pencil or other object may be inserted in the hub and held in the operator's hand, and the periphery of the disk is placed in contact with the 65 surface to be measured with the line opposite the numeral 1 of the graduations at the starting point. The disk is then rolled along the surface to be measured and if more than one rotation of the disk is necessary, 70 that is if the object to be measured is more than six inches long, a mental note is made of the number of revolutions and, finally, when the end of the surface being measured is reached, the fractional parts of an inch, if 75 any, are added to the total number of inches gone over, each complete revolution of the disk indicating, of course, a length of six inches, and thus the total length of the object in inches and fractions of an inch is 80 ascertained.

It is obvious that the instrument can be utilized to accurately determine the dimensions of objects which it would be impossible to accurately measure with a straight rule, 85 as, for instance, the circumference of a cylindrical object, the circumference of a circular, oval, or irregular opening and a great many other dimensions which could not be measured by means of an ordinary straight 90 rule.

The flat sides of the disk 1, present a surface which may be readily printed, stamped, or engraved and it is my purpose to utilize the surface to bear advertising matter, as the 95 device can be made so cheaply that it can be given away as an advertising medium the advertising secured being sufficient remuneration for the cost of manufacture.

The hollow hub 4 has its bearing on the 100 washers 2 and these washers therefore assist in preventing wear of the disk by its rotation on the hub.

I claim.

nation of a circular disk having graduations adjacent its periphery and having a hole in A stick, lead pencil or other object may | its center with washers arranged on each side be inserted in the hub 4, so as to afford a | of the disk and surrounding the edges of the 55 means for holding the measuring instru- | hole in the disk and a hollow hub passing 110 loosely through the disk and adapted to receive an object by which the instrument may

be held while in use.

2. In a measuring instrument, the combi-5 nation with a flat disk having a circumference of definite size in inches, and having numbered graduations on its flat side indicating the circumference in inches and fractions of an inch, and having a central hole, 10 of washers attached to the disk on each side

of the central hole, and a hub fitting loosely in said hole and said washers and having flanges externally of the washers.

In testimony whereof I have affixed my signature, in presence of two witnesses.

ISAAC L. DAVENPORT.

Witnesses:
Chas. B. Connolly,
Blanche Staples.