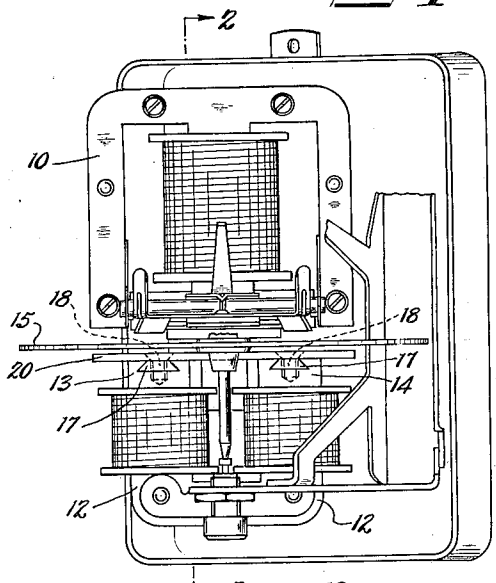
April 9, 1935. E. SPAHN 1,996,936

ELECTRICITY METER

Filed April 7, 1933

Fig 1



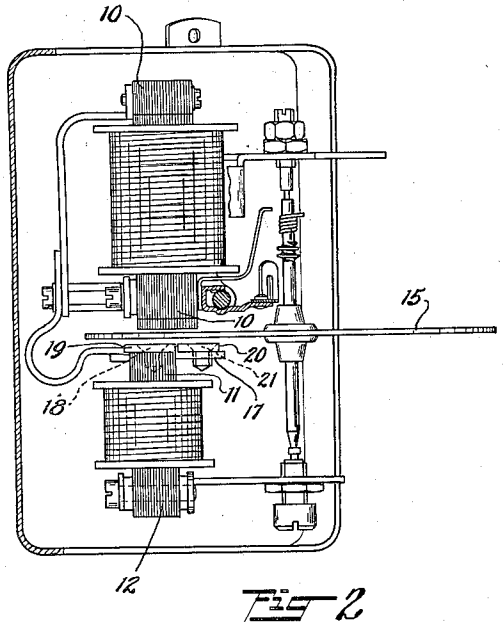


Fig 2

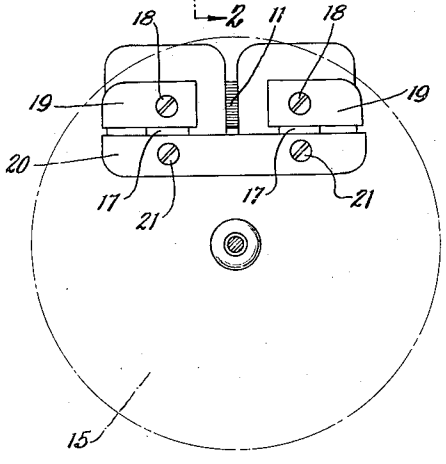


Fig 3

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Patented Apr. 9, 1935

1,996,936

UNITED STATES PATENT OFFICE

1,996,936

ELECTRICITY METER

Emil Spahn, Zug, Switzerland, assignor to Landis & Gyr, A.-G., a corporation of Switzerland

Application April 7, 1933, Serial No. 664,847
In Switzerland April 7, 1932

1 Claim. (Cl. 171—264)

The present invention relates to induction watt-hour meters, and more particularly to a novel and improved magnetic shunt for the current core of such a meter.

Objects and advantages of the invention will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice with the invention, the same being realized and attained by means of the instrumentalities and combinations pointed out in the appended claim.

The invention consists in the novel parts, construction, arrangements, combinations and improvements herein shown and described.

The accompanying drawing, referred to herein and constituting a part hereof, illustrates one embodiment of the invention, and together with the description, serve to explain the principles of the invention.

Of the drawing:

Figure 1 is a front elevation of the illustrative embodiment of the present invention;

Figure 2 is a side elevation of the mechanism shown in Figure 1; and

Figure 3 is a plan view of the current core shown in Figures 1 and 2.

The present invention has for its object the provision of a novel and improved watt-hour meter of the Ferraris type provided with an improved magnetic shunt on the current core. A further object is the provision of such a meter in which the magnetic shunt for the current core lies on the plane of the faces of the current core pole pieces and extends to one side of the current core.

Referring now in detail to the illustrative embodiment of the invention as shown in the accompanying drawing, the electricity meter comprises the usual voltage core 10 and windings, which cooperate with a current core 11 having two limbs 12 with their pole pieces 13, 14 lying in the same plane and in close proximity to the rotatable metering disc 15. The upper face of the pole pieces 13 and 14 are dovetailed to receive brass strips 17 which are threaded to receive screws 18 by which the oppositely extending pole plates 19 are secured to the faces of pole pieces 13 and 14. Brass strips 17 extend to one side of the pole pieces and also support the magnetic shunt piece 20, formed of sheet iron, which is secured thereto by screws 21. Shunt piece 20 is spaced slightly from the pole plates 19, extends parallel thereto, and lies at one side of the current core in the plane of the pole plates 19. Current core 11 is preferably positioned slightly out of alinement with the voltage core 11, to permit shunt 20 to partially lie beneath voltage core 10.

It is particularly desirable to have the shunt piece 20 lying in the same plane as the pole plates 19, as this causes a displacement of the effective shunt pole on the periphery of the disc of the driving system, improving the effect generally produced by a magnetic shunt. The pole plates 19 also serve to increase the torque of the system and the novel combination of the pole plates and parallel shunt piece improves the characteristic performance curve of the meters at high loads as well as retains the accuracy of the meters at normal loads.

The invention in its broader aspects is not limited to the specific mechanisms shown and described but departures may be made therefrom within the scope of the accompanying claim without departing from the principles of the invention and without sacrificing its chief advantages.

What I claim is:

An induction watt hour meter having voltage and current magnets positioned slightly out of alinement with each other, a pair of pole-enlarging plates secured to the pole faces of the current core and extending considerably beyond the outer edges of said core and substantially to the outer edges of the voltage core and a magnetic shunt plate lying to one side of the pole plates, partially beneath the voltage core and from the outer edge of one plate to the outer edge of the other plate.

EMIL SPAHN.