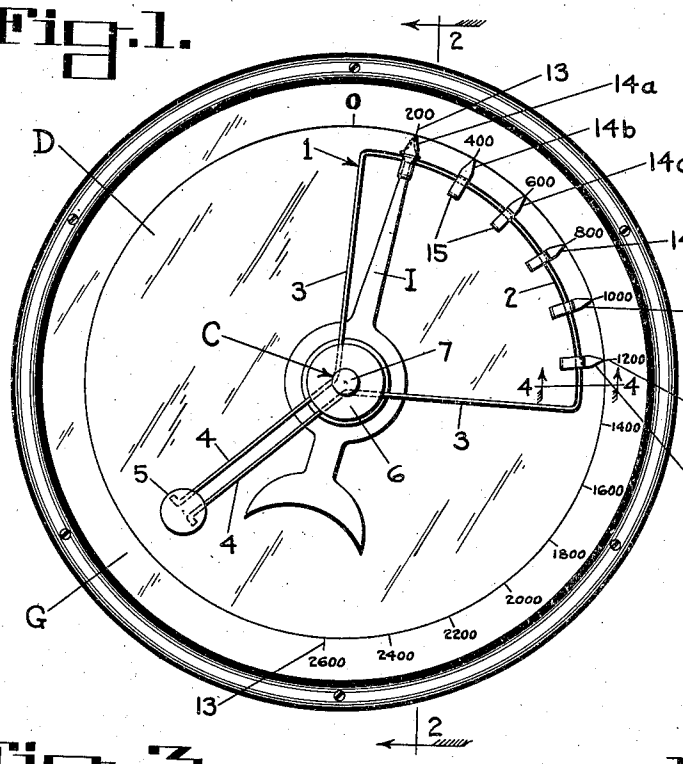
March 14, 1939. G. E. REINKING 2,150,245

WEIGHT DEMARCATING AND FRACTIONAL HOUR RATE INDICATORS FOR SCALES

Filed May 23, 1936

Fig. 1.



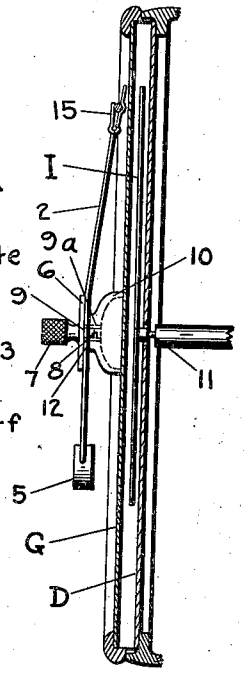
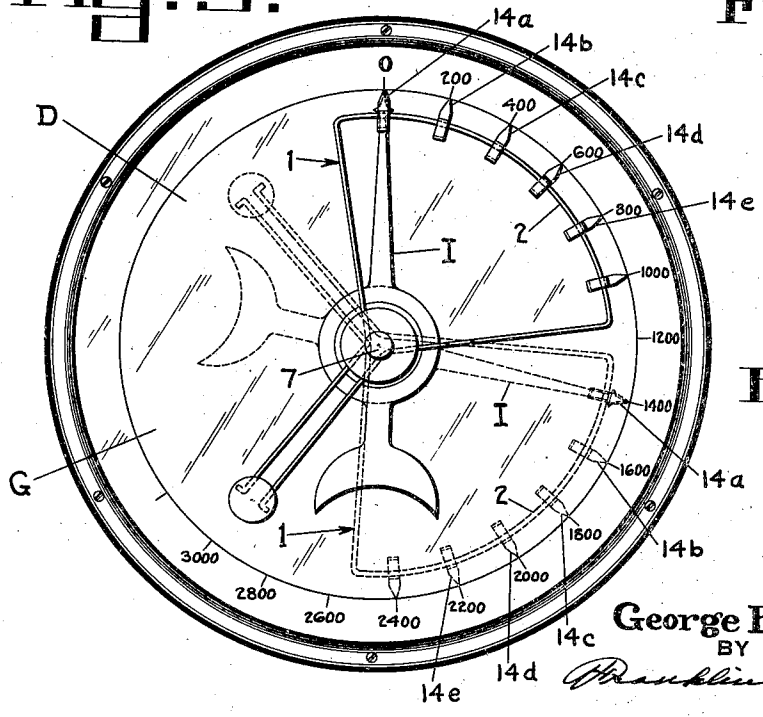


Fig. 2.

Fig. 3.



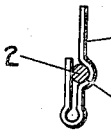


Fig. 4.

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WEIGHT DEMARCATING AND FRACTIONAL HOUR RATE INDICATORS FOR SCALES

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Application May 23, 1936, Serial No. 81,407

5 Claims. (Cl. 116—129)

This invention relates to weight demarcating and fractional hour rate indicators for use in conjunction with the indicator of dial scales.

One of the objects of the invention is to provide a simple and efficient device, which is portable from one scale to another and readily attachable to the dial glass over the outer end of the indicator shaft, and adapted to be located at any desired arc in the dial graduations.

Another object is to provide an indicator device formed of wire into a sector and having its arcuate section provided with a plurality of adjustable indicating pointers adapted to co-operate with the dial graduations within the wire arc of the device.

Another object is to provide the wire sector with means for holding it in any position desired over the dial comprising spaced arms carrying a counter balance at its lower end.

In order that the nature of my invention may be fully understood, I have illustrated certain embodiments of the invention in the accompanying drawing, in which:

Figure 1 is a vertical elevation of the device as applied to the dial glass of a scale and showing a preferred form of my invention, shown in use as a demarcating indicator.

Figure 2 is a vertical section on the line 2—2 of Fig. 1, showing particularly the position of the sector and pointers and the attaching means or cup.

Figure 3 is a vertical elevation of the device showing particularly the adjustable pointers and the counterbalance with the sector shown in dotted outline, in use as a fractional hour rate indicator.

Figure 4 is a side elevation of one of the pointers.

In the drawing 1 designates a portable wire frame or sector which is provided with an upper arcuate portion 2, converging side portions 3, and spaced extended arms 4, formed preferably of one piece of wire and secured by its ends to a circular counterbalance 5. There is mounted at the converging point C a circular plate 6, upon which is disposed a knurled thumb screw 7 mounted on a threaded bolt 8 extending through an opening 9 in the plate 6 and secured in a bushing 9a attached to a rubber suction cup 10 located below the plate 6 and placed upon the dial glass G on an axis substantially concentric with the axis of the indicator shaft 11 of the indicator I.

The threaded bolt 8 extends between the upper ends of the spaced arms 4, which are held between the plate 6 and the flat top 12 of the suction cup 10, while in use the thumb screw 7 is loosened and the sector 1 is swung to the desired position with relation to the selected graduations 13 on the dial D and the sector clamped securely between the plate 6 and the suction cup 10 by adjusting the thumb screw 7. The counterbalance 5 serves to hold the sector 1 in its adjusted position while the sector is being swung into position.

In order to provide means for indicating or demarcating the range of weight graduations it is desired to locate on the dial D the arcuate portion 2 of the sector 1 is provided preferably with a series of adjustable spring tension pointers or markers 14a—14f slidably mounted on the arcuate wire portion 2 and preferably formed of looped metal clips 15, the loop portion 16 of which grips the arcuate wire portion 2 and holds the pointers 14a—14f in a fixed position wherever placed.

As an example of the practical use of the device the requirement may be to add 200 pounds of material or liquid, as the case may be, to containers of a variable tare weight. In this case the sector 1 would be placed in position over the dial glass G, setting two pointers, one pointer 14a set at zero and the other pointer 14b at 200 pounds. Then the empty container is placed on the scale and the sector 1 is moved so that the first pointer 14a will meet the indicator I, for example at 200 pounds, Fig. 1. As thus set it is only necessary to add the desired quantity of 200 pounds of material or liquid to the container so as to move the indicator I to register with the pointer 14b. When used to indicate the fractional hour rate of flow of materials of liquids from a feeding apparatus the movable pointers 14a to 14e are first placed, for example, at the scale graduations of 0—200—400—600 and 800 pounds, Fig. 3, the pointer 14f and any others that may be added to the sector being adapted for indicating other fractional hour rates of flow desired, as for example 10 minute periods. Then the pointer 14a is moved from the zero position to the prevailing or registered graduation position of the indicator on the dial D, Fig. 3. Thus the quarter hour rates of flow are automatically marked for visual observation and notation for the following full hour. If indications at other fractional parts of the hour are desired, the pointers are set accordingly on the sector 1.

While the preferred embodiment of the invention herein shown and described is well adapted to fulfill the objects of the invention, it is to be

understood that it is not intended to confine the invention to the precise form of construction herein disclosed, for it is susceptible of modification in various forms, all coming within the scope of the invention.

I claim:

1. In a device of the character described, an independent, attachable weight demarcating indicator adapted to co-operate with the dial glass, indicator and dial graduations of a weighing scale, the demarcating indicator comprising a sector frame provided with a series of adjustable pointers, rotatably attachable to the said dial glass and having its axis concentric with the axis of the dial indicator, resilient suction means for readily mounting and demounting the demarcating indicator on the dial glass, and adjustable clamping means carried by the suction means and co-operating with the upper and lower sides of the sector frame in locking the sector frame and its pointers in operative position with relation to the dial graduations.

2. An independent weight demarcating indicator attachable to the dial glass of a weighing scale and adapted to co-operate with the indicator and dial graduations of the scale, the demarcating indicator comprising a rotatable sector frame provided with an upper arcuate portion and converging side portions, a series of adjustable spring tension pointers mounted on the said arcuate portion and adapted to be adjustably positioned thereon in relation to the dial indicator and selected dial graduations, independent resilient suction means for mounting the demarcating indicator on the dial glass with its axis concentric with the axis of the dial indicator, and co-acting clamping means carried by the said resilient suction means for engaging the converging side portions and extended arms of the sector frame and thereby securing the demarcating indicator and its pointers at selected positions with relation to the dial graduations.

3. An independent weight demarcating indicator attachable to the dial glass of a weighing scale and adapted to co-operate with the indicator and dial graduations of the scale, the demarcating indicator comprising a rotatable sector frame provided with an upper arcuate portion and converging side portions, spaced arms extending downwardly from the sector frame, and independent resilient suction means operatively positioned on the sector side portions and adapted to mount the said sector frame on the dial glass with its axis concentric with the axis of the dial indicator, and clamping means comprising an adjustable member carried by the resilient suction means at its top and a clamping plate movably mounted on the adjustable member for engaging and clamping the sector frame at the converging point of the side portions of the sector frame.

4. An independent weight demarcating indicator attachable to the dial glass of a weighing scale and adapted to co-operate with the indicator and dial graduations of the scale, the demarcating indicator comprising a rotatable sector frame provided with an upper arcuate portion and converging side portions, spaced arms extending downwardly from the sector frame, means for mounting the said sector frame on the dial glass with its axis concentric with the axis of the indicator, and means for adjustably positioning the sector frame with respect to the dial indicator and a selected series of dial graduations comprising a circular plate mounted above at the junction point of and in contact with the sector frame and the spaced arms, and a resilient suction cup located below and adapted to be detachably mounted on the dial glass, and a thumb screw inserted in the said plate and the suction cup adapted to clamp the sector frame to the suction cup, whereby the sector frame may be adjusted with relation to the dial indicator and a selected group of graduations and then clamped in a fixed position thereat.

5. An independent weight demarcating indicator attachable to the dial glass of a weighing scale and adapted to co-operate with the indicator and dial graduations of the scale, the demarcating indicator comprising a sector frame provided with an upper arcuate portion and converging side portions, spaced arms extending downwardly from the sector frame, resilient suction cup means for mounting the demarcating indicator at the converging point of the side portions of the said sector frame on the dial glass, with its axis concentric with the axis of the dial indicator, a thumb screw carried by the suction cup and clamping means comprising a clamping plate mounted on the thumb screw for adjustably securing therebetween the sector frame to the resilient suction means.

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