Dec. 7, 1948. J. F. LIVELY 2,455,592

ADAPTER ATTACHMENT FOR INDICATOR DIALS

Filed Aug. 9, 1944

Fig. 1.

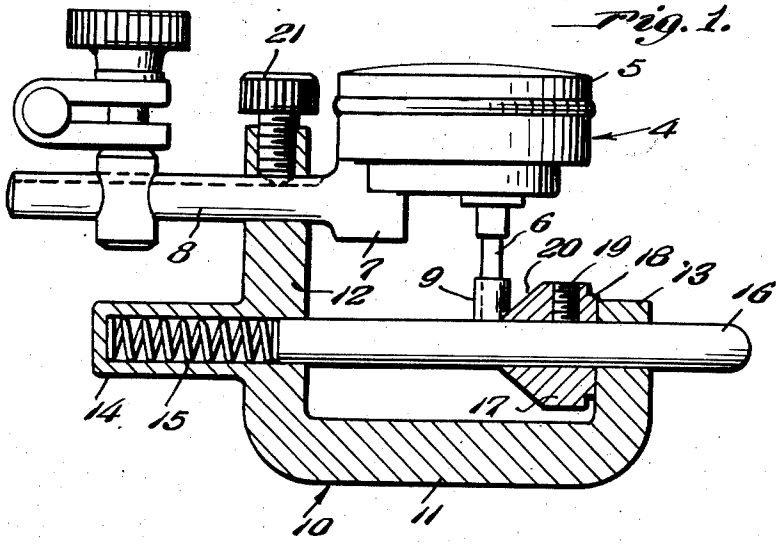


Fig. 2.

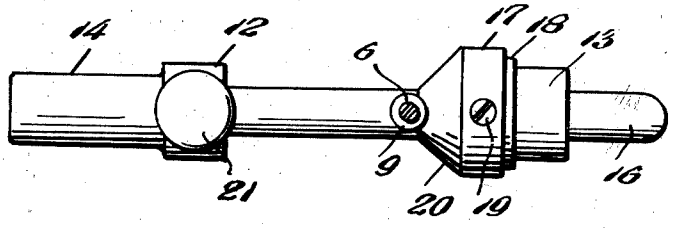
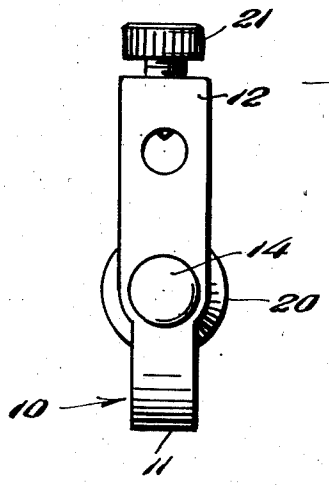


Fig. 3.



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ADAPTER ATTACHMENT FOR INDICATOR DIALS

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2 Claims. (Cl. 33—172)

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This invention relates to a special adapter in the form of an attachment which is directly engageable with the work, the same being adapted to accommodate a substantially standard Starrett dial test indicator.

In carrying out the structural and functional principles of the invention I have evolved and produced a combination attachment and dial indicator which is characterized by compactness and convenience, is strong, reliable, efficient in use, expeditious in its action, will speed up the work by locating numerous points on the work being acted on, will definitely inform the attendant when a point is accurately located instead of depending on make-shift mirrors and other ways-and-means of ascertaining what should be reliable and dependable results.

More specifically, the adapter attachment is in the form of a substantially U-shaped frame, one arm thereof carrying the dial indicator and the other arm a spring-projected work-contacting plunger rod, the latter being, in turn, provided with a cam and said cam coacting with a button on the actuating rod of the indicator dial to accurately transmit the motion of the plunger to the dialing element by way of the button-equipped rod.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the drawings—

Figure 1 is a view partly in section and partly in elevation of the combination assemblage including the indicator dial and adapter attachment, all constructed in accordance with the principles of the instant invention.

Figure 2 is a top plan view with certain of the parts, principally the dial casing, removed to expose the other parts, this for clearness of illustration.

Figure 3 is an end elevation of the structural assemblage with the indicator dial and its attaching arm removed, the view being an observation of Figure 1 in a direction from left to right.

Referring now to the drawings by distinguishing reference numerals, the conventional Starrett dial gauge or indicator is denoted by the numeral 4 and includes the customary casing unit 5, actuating rod 6, the casing being mounted on a head 7 on the inner end of a grooved rod 8. In this instance, the actuating rod 6 is provided with a beveled button 9.

The adapter attachment comprises a substantially U-shaped frame unit 10 embodying a bight

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portion 11 and right angularly disposed limbs or arms 12 and 13, the latter arm being relatively short, the first-named arm being provided with a bore intermediate its ends and an outstanding socket 14 in alignment therewith. The socket contains a coiled spring 15. It also serves to accommodate the adjacent end portion of the work-contacting finger or plunger rod 16. The rounded work engaging end of said rod 16 extends through and beyond a passage in the short arm 13. Intermediate the arms this contact rod is provided with a motion transmitting and transferring element which comprises an annular body 17 with a reduced shouldered portion 18, the portion 17 being held in place by a set screw 19 and carrying a conical wedge 20 engageable with the motion transmitting button 9. The dial gauge or indicator 4 is positioned between the arms 12 and 13 and over the bight portion in proper coacting position and is held in place by a set screw 21 carried by the arm 12 and engaging the adjustable indicator arm 8.

With this arrangement the contact finger 16, that is, the part which engages the work surface is mounted for spring-pressed action in the adapter frame arms and is parallel to the arm 8, the latter carrying the indicator 4 and positioning the same directly above the contact finger 16 and at a point between the two frame arms 12 and 13. As the right-hand rounded end of the contact finger 16 comes into engagement with the surface being acted upon, the motion is transmitted thereby to the cone 20 and from the cone to the button 9 which reciprocates the actuator rod 6 and denotes the result on the dial face.

This indicator attachment is an extremely useful device to denote with accuracy a hole whereas the indicator is readable without using a mirror such as is sometimes required when the indicator is in improper relationship to the work-contacting element. It is believed, however, that these factors are quite evident to persons skilled in the art to which the invention relates.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in the shape, size and arrangement of details coming within the field of invention claimed may be resorted to in actual practice, if desired.

I claim:

1. An adapter attachment for a dial test indica-

tor comprising a substantially U-shaped frame including a central bight portion and long and short arms connected thereto and extending laterally therefrom, the short arm having an opening for passage of a coacting contact finger, the longer arm being provided with a bore and an aligned socket opposite to and in alignment with said opening, a coiled spring in said socket, a work engaging and contacting finger bridging the space between said arms and parallel to said bight portion and having one end slidable in said socket and the other end slidable in the opening of said short arm.

2. An adapter attachment for a dial test indicator comprising a substantially U-shaped frame embodying a bight portion and a pair of complemental arms, said arms being substantially parallel to one another, one arm having a guide opening for accommodation and passage of a sliding contact finger, the remaining arm being provided with a bore and a socket aligned with said bore, said socket extending outwardly beyond the arm and being in alignment with the opening in said first-named arm, a coiled spring located and confined in said socket, a work-contact finger having one end slidable in said bore and the opposite end passing through the opening in said first-named arm and projecting beyond said arm, the upper end of said second-named arm being apertured and provided with a set-screw projecting into said aperture to accommodate an arm on a dial indicator, and an annulus mounted on said contact finger inwardly of said first-named arm, said annulus being provided with a conical cam for coaction with the usual actuating rod provided on said indicator.

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REFERENCES CITED

The following references are of record in the file of this patent:

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