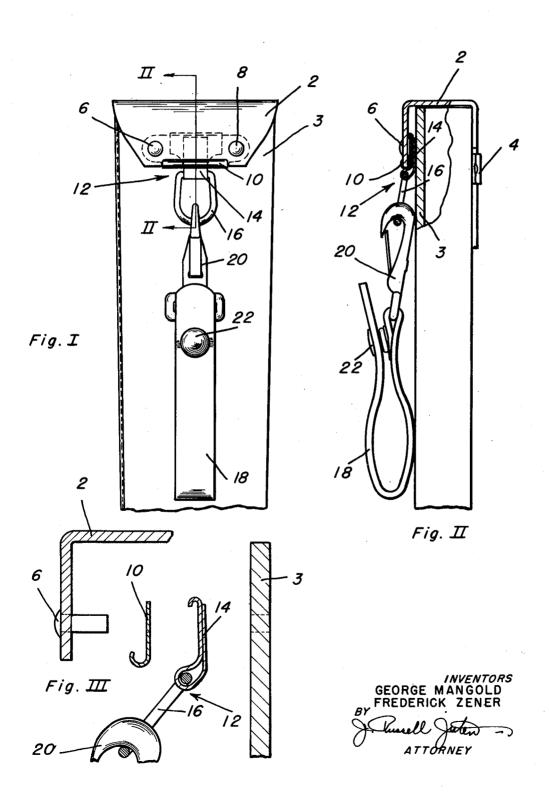
## G. MANGOLD ET AL

SLIDE RULE BELT CARRIER

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# UNITED STATES PATENT OFFICE

2,602,574

#### SLIDE RULE BELT CARRIER

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1 Claim. (Cl. 224-5)

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This invention relates to a device for attaching a slide rule case to a belt. It is particularly useful with the type of slide rule case of Patent No. 2,000,337 to Adolf W. Keuffel.

Engineering students are usually required to carry a slide rule from class to class and because the conventional slide rule is too large to put in one's pocket, it is awkward to carry and there is danger of its becoming lost. The present invention provides means for attaching the slide rule case to the student's belt whereby the slide rule is always within convenient reach and cannot become lost.

The means of accomplishing the objects of the invention will be apparent from the following 15 description taken in connection with the accompanying drawing in which:

Fig. I is a view in rear elevation showing a slide rule case with the belt carrier attached.

Fig. II is a view in side elevation and partly 20 in section along the line II—II of Fig. I showing the same slide rule case with belt carrier attached.

Fig. III is a view similar to the view of Fig. II but which is enlarged and exploded to show the

essential parts more clearly.

The slide rule case shown in the drawing is a commercial slide rule case. This particular case has a flap 2 for closing the top end of the case, which flap is secured to the back of the case 3, passes over the top of the case and is provided 30 with a tongue at the front which is held in position by passing it under a transverse strap 4. The construction of the transverse strap 4 may be as taught in Patent No. 2,000,337 but the particular tongue holding means provided on the case does not affect the use of the belt carrier which is the subject matter of this invention.

The flap 2 of the commercial slide rule case shown in the drawing is secured to the back of the case 3 by two rivets 6 and 8. The flap 2 is reenforced at the point of riveting by a flat strip of stiff material 19 which is preferably of sheet steel. The flat reenforcing strip of stiff material 10 extends under the flap 2 and covers an area near the lower edge of the flap which area includes the points at which the rivets 6 and 8 pass through the flap 2. The reenforcing strip 10 may also be provided with an extension that is bent up over the lower edge of the flap 2 and is pressed into intimate contact with the lower 50 hook 20. edge of the flap 2. This type of reenforcing strip 10 is standard on a commercial slide rule case and the equivalent for purposes of this invention may readily be provided on other slide rule cases. For example, a reenforcing strip of stiff material could 55 belt.

be applied outside of the flap 2 instead of between the flap and the back of the case.

To accomplish the purpose of this invention an attachment 12 is provided which permits the slide rule case to be readily attached to a belt. The attachment 12 is made up of a strip of flat stiff material 14 and a loop or ring 15 which may be made of steel wire. The strip of flat stiff material 14 is provided with a reverse bend which serves as a hook at its upper end and with a loop on its lower end. The loop on the lower end of the strip of flat stiff material 14 engages the loop 16.

The attachment 12 made up of the flat strip 14 and the loop 16 may be secured to the slide rule case in the following manner. The flap 2 of the slide rule case is opened and the attachment 12 with the loop 16 at the bottom and the flat strip 14 with the hook facing outward is forced down between the rivets 6 and 8 and between the reenforcing strip 10 and the back of the slide rule case 3 until the loop provided at the lower end of the strip of flat stiff material 14 extends below the lower edge of the flap 2 and the hook provided on the upper end of the strip of flat stiff material 14 engages the upper edge of the reenforcing strip 19.

The flat strip 14 is preferably bent so that the hook on its upper end and the loop on its lower end are spaced so that they just span the width of the reenforcing strip 10. If the reenforcing strip is provided on the outside of the flap 2, the attachment should then be inserted between the reenforcing strip and the flap. If it is not desired to have the flat strip 14 detachable it may be made integral with the reenforcing strip 10. The ring or loop 16 may be made detachable from the flat strip of stiff material 14 by making the ring 16 in the form of a split ring similar to a key ring.

A loop of material forming a strap 18 is provided with a conventional snap hook 20 by means of which it may be detachably fastened to the loop 16. The strap 18 is joined together by means of a snap 22. When the snap 22 is opened, the strap 18 may be passed around a belt and the loop closed by means of the snap 22 so that the snap hook 20 opens to the front. The slide rule case may then be secured to the belt by joining the loop 16 to the strap 18 by means of the snap hook 26.

The invention provides a belt carrier for a slide rule case in which a loop or ring is secured to the case. This loop may be detachably secured to a strap which may in turn be fastened around a belt. Having thus described the invention, what is

An attaching strip for a slide rule case carrying a ring by means of which the slide rule case may be attached to a person's belt comprising a flat strip of stiff material having a reverse bend forming a hook at one end and a bend forming a loop at the other end for carrying said ring, said flat strip of stiff material being adapted to fit between an outer wall of the slide rule case and a second strip of stiff material secured to said wall of the slide rule case at both of its ends and extending in a direction substantially perpendicular to the length of the slide rule case so that said hook engages one edge of said second strip of stiff material and so that said loop extends beyond the other edge of said second strip of stiff material.

GEORGE MANGOLD. FREDERICK ZENER.

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