L. D. RICHARDSON.

TAPE GRIP.

APPLICATION FILED JAN. 27, 1909.

925,384. Patented June 15, 1909.

Fig. 1.

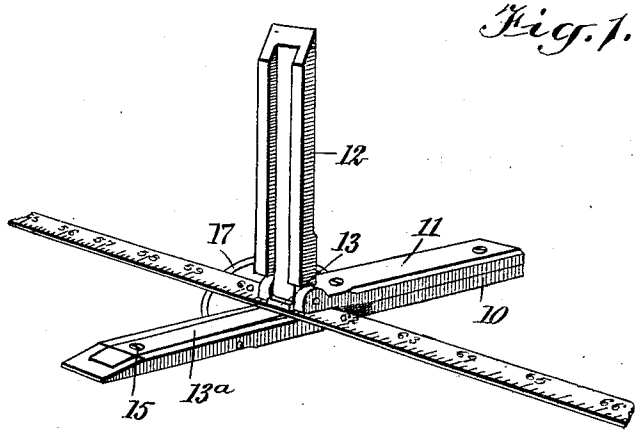


Fig. 2.

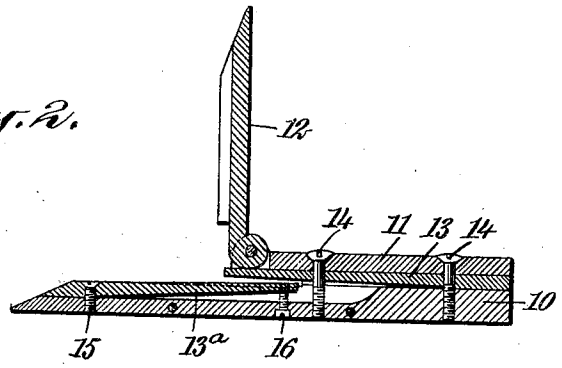


Fig. 3.

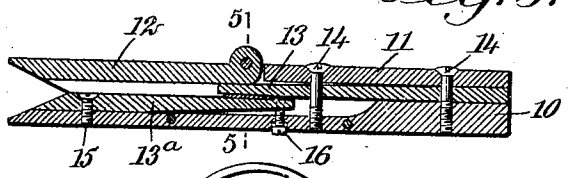


Fig. 4.

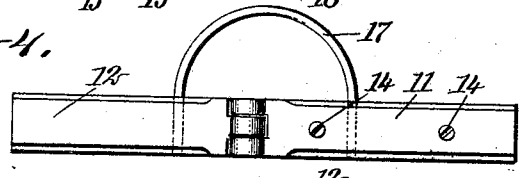
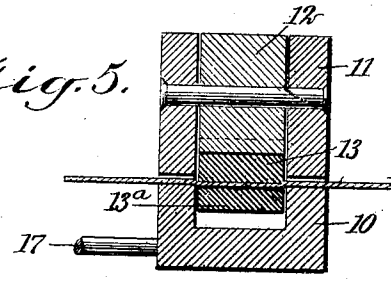


Fig. 5.



WITNESSES

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TAPE-GRIP.

No. 925,384. Specification of Letters Patent. Patented June 15, 1909.

Application filed January 27, 1909. Serial No. 474,427.

To all whom it may concern:

Be it known that I, LOUIS D. RICHARDSON, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Tape-Grip, of which the following is a full, clear, and exact description.

This invention is an improvement in tape grips designed to securely hold an engineer's or surveyor's tape in the taking of measurements, without danger of cutting or chafing the hands.

The invention in its broader aspect may be defined as consisting of a rigid bar member, a second bar member of substantially one-half the length of the first and secured to one face thereof, and means including a lever, pivoted to said second bar member for clamping the tape between it and the first mentioned bar member.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of my improved tape grip complete, showing the lever raised and a tape in position preparatory to clamping it in place; Fig. 2 is a longitudinal central section through the grip, with the gripping lever open; Fig. 3 is a similar section, with the gripping lever closed and the tape in position; Fig. 4 is a plan of the grip; and Fig. 5 is a cross-section on the line 5—5 of Fig. 3.

The tape grip embodies in its construction a rigid bar member 10, a bar member 11 and a lever 12, the bar member 11 being approximately one-half of the length of the bar member 10, and the lever 12 pivoted thereto and extending, when closed, the remaining half length of the bar member 10 and providing in connection with the bar members, handholds at opposite ends. The bar member 11 is bifurcated at its inner end to receive the reduced inner end of the lever, the latter being in the nature of a cam, and with the thickness of metal between its pivot and under side greater than the thickness of the metal between the pivot and its adjacent inner end. The bar member 11 is longitudinally grooved on its under face to receive a spring 13 which is clamped to the face of the bar member 10 by suitable devices, as the screws 14. The half portion of the bar member 10 farthest removed from the bar member 11 is similarly grooved on its inner face, as is also the lever, to receive a flat spring 13^a, the latter being secured at its outer end to the bar member 10 by a screw or equivalent device 15, and the inner end thereof engaged by an adjusting screw 16 threaded through the bar member 10. Both springs 13 and 13^a are preferably wedge-shaped in the direction of their lengths, with the enlarged ends thereof arranged outwardly and the inner and thinner end portions thereof overlapping and providing opposed gripping surfaces, as best shown in Figs. 2 and 3. These gripping surfaces or faces of the springs are preferably knurled to prevent slipping of the tape. The cam or hinged end of the lever 12 bears on the end of the spring 13 and operates, when closed, to force the gripping faces of the springs together. Should the tape be of such thickness that the gripping faces of the springs fail to clamp it when the lever is depressed, or that it is clamped before the lever is fully closed, the springs may be brought together or separated the proper distance by the adjustment of the screw 16. The outer end of the lever and the adjacent end of the bar member 10 are beveled to facilitate the insertion of the tape, and the grip at one side of the center has an eye or hook 17 for the attachment of spring balances.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A tape grip comprising a bar member, a second bar member of substantially half the length of the first, secured to the upper face thereof, a lever pivoted to the second bar member, and means including a spring interposed between the bar members and operated by said lever to clamp the tape.

2. A tape grip comprising a bar member, a second bar member of substantially half the length of the first, secured to one face thereof, and means to clamp the tape including a lever pivoted to the second bar member, said lever having a beveled outer end to facilitate the insertion of the tape.

3. A tape grip comprising a rigid bar member, a second bar member of substantially one-half the length of the first and secured to one face thereof, and means including a lever, pivoted to said second bar member for clamping the tape between it and the first mentioned bar member.

4. The combination in a tape grip, of a rigid bar member, flat springs secured to said member, having overlapping inner end portions provided with opposed gripping faces, and means to force the springs together to grip the tape therebetween.

5. The combination in a tape grip, of a rigid bar member, flat springs secured to said member, having overlapping inner end portions provided with opposed gripping faces, means to force the springs together to grip the tape therebetween, and means for adjusting the distance between the gripping faces of the springs independent of said means.

6. The combination in a tape grip, of a bar member, a second bar member of approximately one-half the length of the first bar member, secured thereto adjacent to one end, a spring arranged between the bar members, a second spring secured to the first bar member adjacent to the opposite end thereof, the springs having overlapping inner end portions, and a lever pivoted to the second bar member to force the springs together to clamp the tape therebetween.

7. The combination in a tape grip, of a bar member, devices having opposed gripping surfaces arranged near the center of the member, a lever to force one of said devices to the other to grip the tape therebetween, and means for adjusting the distance between the gripping faces of said devices independent of the lever.

8. The combination in a tape grip, of a bar member, a second bar member of approximately one-half the length of the first bar member, secured thereto adjacent to one end thereof, flat springs having overlapping inner ends provided with gripping surfaces, with one of said springs secured between the bar members, and the other spring secured to the first bar member adjacent to its opposite end, and a lever pivoted to the inner end of the second bar member, having a cam inner end to force the inner end portion of one spring toward the inner end portion of the other.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS DEXTER RICHARDSON.

Witnesses:
ELMER S. CHACE,
ALBERT A. BAKER.