C. L. BAILEY.

THREAD GAGE.

APPLICATION FILED MAR. 17, 1914.

1,138,438. Patented May 4, 1915.

Fig. 1,

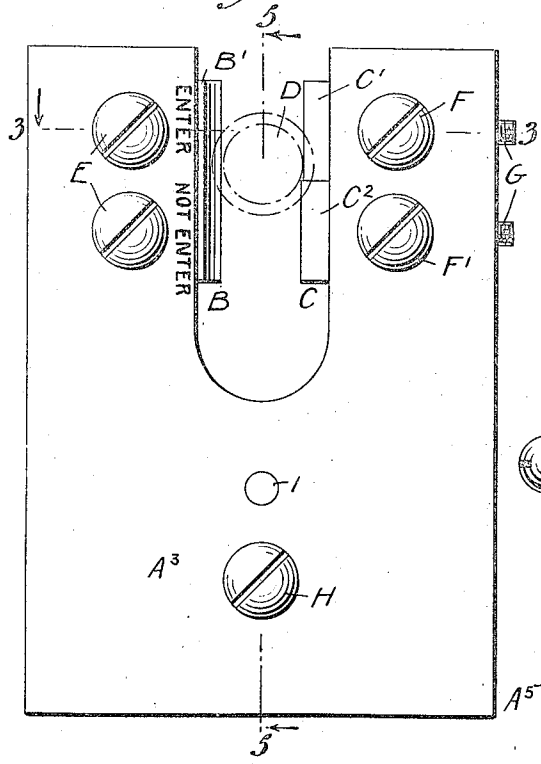



Fig. 4,

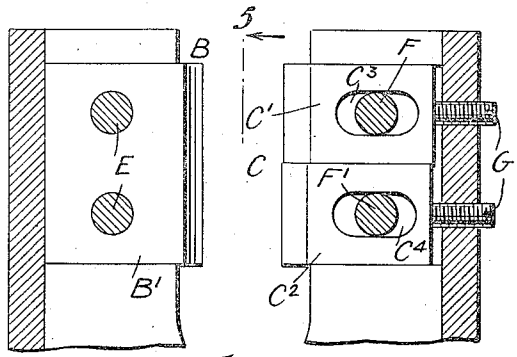



Fig. 7.

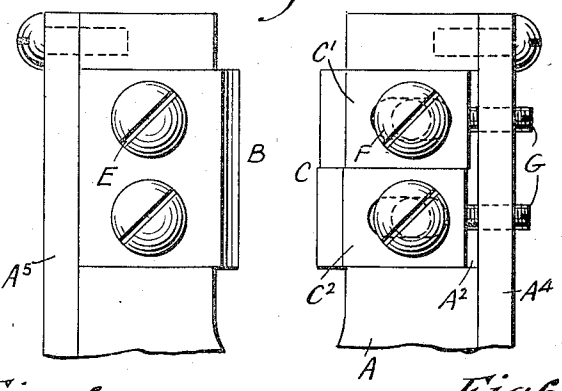



Fig. 2,

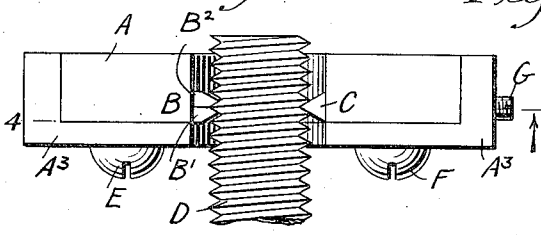



Fig. 5,

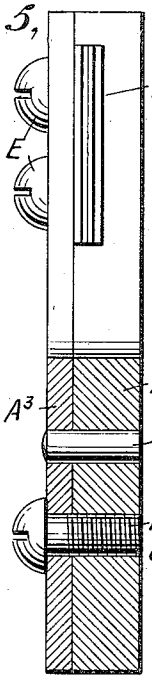



Fig. 6,

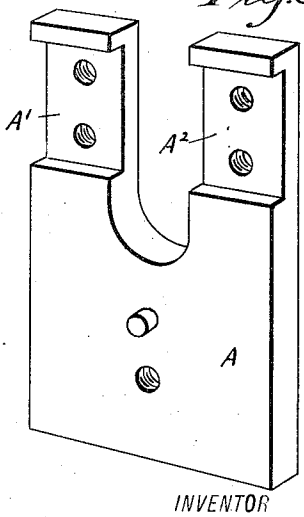
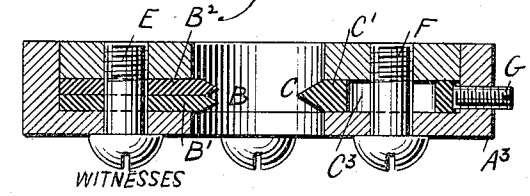



Fig. 3,




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## THREAD-GAGE.

1,138,438. Specification of Letters Patent. Patented May 4, 1915.

Application filed March 17, 1914. Serial No. 825,372.

*To all whom it may concern:*

Be it known that I, CHARLES LOUIS BAILEY, a citizen of the United States, and a resident of Glen Ridge, in the county of Essex and State of New Jersey, have invented a new and Improved Thread-Gage, of which the following is a full, clear, and exact description.

The invention relates to measuring instruments, and its object is to provide a new and improved thread gage more especially designed for use by machinists and other mechanics and arranged to enable the user to quickly and accurately determine whether the thread of a screw, bolt, tap or similar threaded article, is of the correct size or not.

In order to accomplish the desired result use is made of gage members having V-shaped edges spaced apart and between which a screw or other threaded article to be gaged is passed to determine whether the threaded article is of the correct size or not.

A practical embodiment of the invention is represented in 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 side elevation of the improved thread gage; Fig. 2 is a plan view of the same with a screw to be gaged in position in the gage; Fig. 3 is a sectional plan view of the thread gage on the line 3—3 of Fig. 1; Fig. 4 is a sectional side elevation of part of the thread gage on the line 4—4 of Fig. 2; Fig. 5 is a cross section of the thread gage on the line 5—5 of Fig. 1; Fig. 6 is a perspective view of the body of the thread gage; and Fig. 7 is a side elevation of a modified form of the thread gage.

The body or stock A of the thread gage is U-shaped in its upper portion, and is provided at the members of the said upper portion with recesses or guideways $A'$, $A^2$ in which fit gage members B and C spaced apart in the opening of the stock A for the passage of a screw, bolt, tap or similiar threaded article D to be gaged. The gage member B is formed of two superimposed plates $B'$ and $B^2$ each provided with V-shaped edges to form between the said edges a V-shaped groove corresponding to the V-shaped thread of the article D to be gaged, as plainly indicated in Fig. 2. The gage member B is secured in place in the recess $A'$ by screws E which also pass through a cap plate $A^3$ held on the stock and covering the front faces of the gage members B and C. The gage member C is formed of two plates $C'$ and $C^2$ located one above the other and having V-shaped edges disposed directly opposite the V-shaped groove formed by the plates $B'$, $B^2$ of the gage member B. The V-shaped edges of the plates $C'$, $C^2$ are adapted to pass between adjacent threads of the article D, as plainly indicated in Fig. 2. The lower plate $C^2$ is set slightly farther inward than the upper plate $C'$ so that the article D when of correct size can be passed downward between the upper portion of the gage member B and the plate $C'$, but is stopped from moving farther downward by the plate $C^2$ set farther inward than the plate $C'$. Thus the user of the thread gage can readily determine whether the article is of correct size or not, for if the article passes all the way through the gage members B and C then the diameter of the article is smaller than intended. The plates $C'$ and $C^2$ are provided with slots $C^3$, $C^4$ (see Fig. 4) through which extend screws F, $F'$ also passing through the cap plate $A^3$ to hold the plates $C'$, $C^2$ securely in place in the recess $A^2$.

In order to properly adjust the plates $C'$, $C^2$ use is made of set screws G screwing in the side of the cap plate $A^3$ adjacent the recess $A^2$, the inner ends of said set screws abutting against the outer ends of the plates $C'$, $C^2$. Thus when the screws F, $F'$ are loosened the plates $C'$, $C^2$ can be adjusted to gage articles of a predetermined size. In practice, about four gages will be necessary for gaging threaded articles such as mentioned, from eight to forty threads per inch. One gage will be arranged to accommodate threaded articles from 8 to 13 threads to the inch, another from, say, 14 to 20 threads, another from 22 to 30 threads, and another from 32 to 40 threads to the inch.

In the modified form shown in Fig. 7, the cap plate $A^3$ is dispensed with, and the sides of the body A are provided with abutment plates $A^4$, $A^5$, of which the abutment plate $A^5$ forms an abutment for the gage member B while the abutment member $A^4$ carries the set screws G. As shown in the drawings, the cap plate $A^3$ is preferably fastened in place on the body A by a screw H and a dowel pin I to permit convenient removal of the cap plate $A^3$ for changing the gage members B and C whenever it is desired to do so. It is further understood

that the same body A can be used for the different sets of gage members B and C above mentioned and be used to accommodate articles having different threads.

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

1. A thread gage provided with oppositely-disposed gage members spaced apart to form a passage for a threaded article to be gaged, the gage members having straight edges, of which one is grooved for the passage of a thread of the article and the other edge is adapted to pass between adjacent threads of the article and is provided with an upper and a lower portion, of which the lower portion is set farther inward than the upper portion.

2. A thread gage, comprising a stock, gage members adjustably held on the said stock and having oppositely-disposed edges spaced apart for the passage of a threaded article, one of the edges having a groove extending lengthwise of the edge for the reception of a thread and the other edge being adapted to pass between adjacent threads of the article, one of the gage members being made in parts having their edges offset one beyond the other part.

3. A thread gage, comprising a stock provided with spaced arms having guideways, gage members fitting the said guideways and having oppositely-disposed edges spaced apart for the passage of a threaded article, the edge of one of the said gage members having a lengthwise-extending groove for engagement by a thread of the article, and the edge of the other gage member being adapted to pass between adjacent threads of the article, the said last-named gage member being made in parts, and means for adjusting one of the parts independently of the other toward the grooved member.

4. A thread gage, comprising a stock provided with spaced arms having guideways, gage members fitting the said guideways and having oppositely-disposed edges spaced apart for the passage of a threaded article, the edge of one of the said gage members having a lengthwise-extending groove for engagement by a thread of the article, and the edge of the other gage member being adapted to pass between adjacent threads of the article, the last-named gage member being made in parts each having a slot, screws passing through the slots and screwing in the said stock to fasten the gage member parts in place, and adjusting screws screwing in the said stock against the outer ends of the said gage member parts.

5. A thread gage provided with gage members, one of said members having V-shaped edges spaced apart to form a groove and between which the thread of the article to be gaged is passed, one of the members having an upper part and a lower part, of which the edge of the lower part projects beyond the edge of the upper part.

6. A thread gage provided with gage members spaced apart for the passage of the article to be gaged, one of the said gage members being formed of two plates each having a V-shaped edge to form a V-shaped groove between them, and rigidly held together, the other gage member having a V-shaped edge disposed opposite the said groove.

7. A thread gage provided with gage members spaced apart for the passage of the article to be gaged, one of the said gage members being formed of two plates each having a V-shaped edge to form a V-shaped groove between them, the other gage member being formed of an upper and a lower plate, the plates having V-shaped edges disposed opposite the said groove, the edge of the lower plate being set in advance of the edge of the upper plate.

8. A thread gage comprising a stock provided with spaced arms having guideways, gage member fitting the said guideways and having oppositely disposed edges spaced apart for the passage of a threaded article, the edge of one of the said gage members having a lengthwise extending groove for engagement by a thread of the article, and the edge of the other gage member being adapted to pass between adjacent threads of the article, the last named gage member being made in parts each having a slot, and screws passing through the slots and screwing into the stock to fasten the gage-member parts in place and permit the edges of the parts being adjusted relatively to each other.

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

CHARLES LOUIS BAILEY.

Witnesses:
THEO. G. HOSTER,
PHILIP D. ROLLHAUS.