

J. A. ADELL.
 THREAD GAGE.
 APPLICATION FILED MAY 9, 1910.

1,002,019.

Patented Aug. 29, 1911.

Fig. 1.

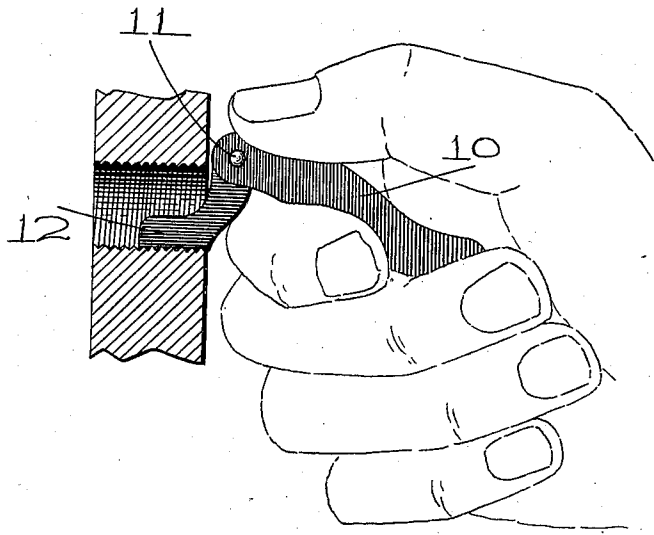


Fig. 2.

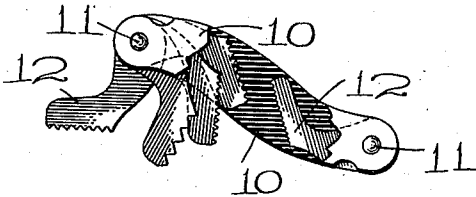
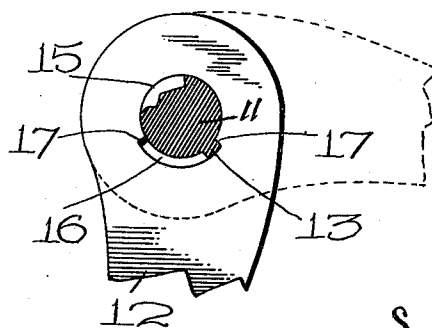


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. ADELL, OF ORANGE, MASSACHUSETTS.

THREAD-GAGE.

1,002,019.

Specification of Letters Patent.

Patented Aug. 29, 1911.

Application filed May 9, 1910. Serial No. 560,169.

To all whom it may concern:

Be it known that I, JOHN A. ADELL, a citizen of the United States, residing at Orange, in the county of Franklin and State of Massachusetts, have invented a new and useful Thread-Gage, of which the following is a specification.

This invention relates to a thread gage.

As ordinarily constructed the well-known simple type of gages for screw threads consists of a frame or handle in which are pivotally mounted a plurality of leaves on each one of which is a gage surface for the threads. These have usually been freely pivoted so that they could be turned to any desired position with respect to the body of the device. With that construction it is obviously necessary to hold the leaf with the thumb and finger independently of the handle, particularly when the gage is being used on a thread in a hole. On account of the shape of these leaves the finger which is required to hold them comes at the front where it is in the way at such a time.

The principal objects of this invention are to provide simple means whereby it is unnecessary to hold the individual leaf with the finger in front, and at the same time prevent the leaves at the other end of the implement from falling down in the way.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a side view of a thread gage constructed in accordance with this invention showing it in use. Fig. 2 is a similar view of the same with part of the outer handle broken away to show interior construction; and Fig. 3 is an enlarged view of one of the pivot pins and gage leaves.

To all external appearances a thread gage constructed in accordance with this invention is substantially the same as those now on the market. Each comprises a handle consisting of two opposite members 10, fixed pivot pins 11 at the ends thereof which hold the handle members together, and two sets of leaves 12 pivoted on these pins.

In order to provide for holding the leaves in their outermost position and relieve the operator from the necessity of grasping the forward side of the leaf with the finger, each of the pivot pins 11 is provided with a longitudinal projecting key 13. This key may be applied in many ways, but preferably it

is constructed integrally with the pin and is shown as formed by manipulating the pin in dies so as to cause the material of the pin to project at one side to form the key. Each of the leaves is provided with a perforation 15 having a main portion that is of the same size as the pin and concentric therewith. This perforation also has a curved extension 16 of larger diameter than that of the pin having two shoulders 17 at its ends. This portion is sufficiently far from the center to receive the key 13. As it is concentric with the main part of the perforation it will be seen that the turning of the leaf on the pin will be a true pivotal motion in spite of the non-circular shape of the perforation.

The leaf when within the handle is in such position that one of the shoulders 17 is against the key which stops the leaf and permits it to turn from the handle in one direction only. The leaves at the two ends of the implement are arranged oppositely, that is, so that when they are closed in the handle those at one end will be against the stop on one side, and those at the other end on the other side. On this account when the device is held on edge in one position the leaves on one side will remain in the handle by gravity and the operator does not need to pay any attention to them. On the other hand those that he is using at the other end will drop down out of the handle by gravity and he can easily select the one he wishes, and the finger which holds the bottom of the forward end of the implement will retain these leaves that are not being used in the handle and at the same time will hold the leaf in use out in position for operation even in very difficult places as shown in Fig. 1. In this position the other shoulder 17 comes against the key 13 and forms a positive stop so that the leaf is held in a definite position with respect to the handle, without placing the finger or thumb in front of it. These shoulders are arranged at such position that when the handle is held in horizontal position the bottom of the gage will be substantially horizontal also. On this account it will be seen that in addition to the fact that the operator can hold this leaf out in position for use with one finger, and that located back of the leaf where it is out of the way, he is relieved from all necessity of bothering with the leaves at the opposite end of the implement, and they will not drop down

in the way as they do in gages constructed as at present.

While I have illustrated and described a preferred embodiment of the invention, I am
5 aware that many modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the
10 details of construction herein shown and described, but

What I do claim is:—

1. In a thread gage, the combination of a handle, a pivot pin supported thereby, a
15 plurality of leaves pivoted on said pin, and means on said pin for limiting the pivotal motion of said leaves as they are swung outwardly and for preventing them from being swung inwardly past the rear of the
20 handle.

2. In a thread gage, the combination of a handle, a pin extending therethrough, a plurality of thread gage leaves pivoted on the pin, and means on the pin for stopping
25 said leaves in a position in which their thread gage surfaces are substantially parallel with the length of the handle.

3. In a thread gage, the combination of a handle, a pivot pin therefor having an
30 integral key extending throughout the

length thereof within the handle, and a plurality of thread gage leaves pivoted on said pin, each of said leaves having a perforation provided with a main part of substantially the same diameter as that of the
35 pin, and an enlarged portion having a radius equal to the distance of the end of the key from the center of the pin, said enlarged portion having shoulders at its ends for engaging the pin and limiting the
40 pivotal motion of the leaves.

4. As an article of manufacture, a thread gage comprising a handle, a plurality of gage leaves pivoted on the same axis, each
45 having a series of teeth thereon in alignment at an angle to the body thereof, and means for limiting the outward motion of the leaves through an arc of less than a half circle about their pivot to a point at
50 which the series of teeth are substantially parallel with the end of the handle and spaced at a distance from it.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

JOHN A. ADELL.

Witnesses:

EDWARD ADELL,
FRANK THUNBERG.