

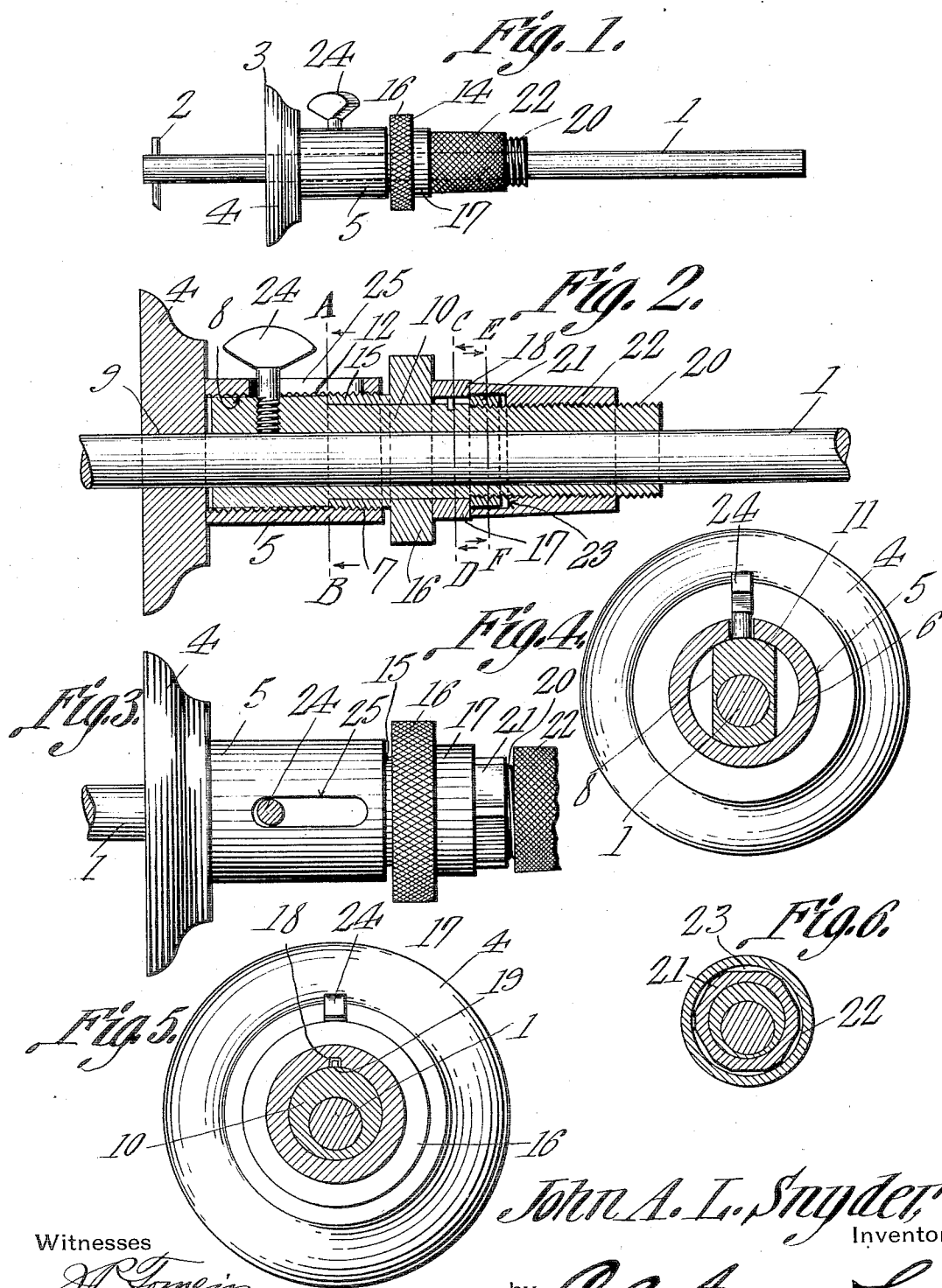
J. A. L. SNYDER.

GAGE.

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1,044,588.

Patented Nov. 19, 1912.



Witnesses

J. P. Tomlin
J. H. Wilson

John A. L. Snyder
Inventor

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN A. L. SNYDER, OF SOMIS, CALIFORNIA.

GAGE.

1,044,588.

Specification of Letters Patent.

Patented Nov. 19, 1912.

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To all whom it may concern:

Be it known that I, JOHN A. L. SNYDER, a citizen of the United States, residing at Somis, in the county of Ventura and State of California, have invented a new and useful Gage, of which the following is a specification.

It is the object of the present invention to provide a micrometer gage in which the beam is set approximately, novel means being provided for advancing the stop portion of the gage by fine adjustments, means being provided for locking the movable parts.

A further object of the invention is to improve generally, devices of the type to which the present invention appertains.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in side elevation; Fig. 2 is a longitudinal section, parts appearing in elevation; Fig. 3 is an enlarged elevation, the device being viewed at right angles to the showing of Fig. 1, the binding sleeve being retracted, and parts being broken away; Fig. 4 is a transverse section on the line A—B of Fig. 2; Fig. 5 is a transverse section upon the line C—D of Fig. 2; and Fig. 6 is a transverse section on the line E—F of Fig. 2.

In carrying out the invention there is provided as a primary element, a beam 1, preferably of circular cross section, the beam 1 carrying at its outer end a scribe 2, presupposing that the device is to be used as a scratch gage. The beam 1 is slidable in a stop denoted generally by the numeral 3 in Fig. 1. The stop 3 comprises a head 4 disposed transversely of the beam 1, and a rearwardly extended tubular neck 5, surrounding the beam, but spaced therefrom. In its interior, the neck 5 at its rear end, is of circular configuration, as shown at 6, this portion of the neck being internally threaded as shown at 7. The bore of the neck 5 is reduced adjacent the head 4 to form a mortise 8, having parallel sides. There is an opening 9 in the head 4 of the stop 3, in

which opening the beam 1 fits closely, yet slidably, the bore of the neck 5 being of much greater diameter than the diameter of the beam 1.

The invention further includes a tubular core denoted generally by the numeral 10. The forward end of the core 10 is received within the neck 5 of the stop 3, the extreme forward end of the core 10 being formed into a flattened tongue 11, adapted to fit slidably, yet against rotation, in the mortise 8 which lies at the forward end of the bore of the neck 5. To the rear of the tongue 11, the core is decreased in diameter, to form a shoulder 12, and to the rear of the shoulder 12, a nut, denoted generally by the numeral 14, is mounted to rotate freely upon the core 10. The nut 14 comprises a forwardly extended neck 15 which embraces the core 10 closely, and an outstanding, milled head 16. The outer surface of the neck 15 is threaded to engage with the internally threaded portion 7 of the neck 5 which constitutes a part of the stop 3.

Mounted loosely upon the core 10, to the rear of the head 16 of the nut 14 is a washer 17, provided in its interior with a slot 18 extended longitudinally of the beam 1, there being a pin 19 outstanding from the core 10, to register in the slot 18, whereby the washer 17 will be prevented from having rotatory movement upon the core 10, although the construction is such that the washer 17 may have a sliding movement upon the core 10, longitudinally of the same.

The rear end of the core 10 is threaded, as denoted by the numeral 20, and mounted upon this threaded portion 20 is a polygonal nut 21, adapted to be disposed to the rear of the washer 17, to hold the same in place, without however, causing the washer 17 to bind against the head 16 of the nut 14. A binding sleeve 22 is threaded upon the portion 20 of the core 10, the sleeve 22 having a recess 23 in its forward end, adapted to receive the nut 21, the construction being such that the sleeve 22 may be advanced beyond the nut 21, to engage with the washer 17.

The invention further includes a set of screws 24, adapted to prevent relative movement between the core 10 and the beam 1. This set screw 24 may be variously positioned, without jeopardizing its utility. In the present instance, the set screw 24 is threaded into the core 10, adjacent the forward end of the core, there being a longitu-

dinal slot 25 in the neck 5 of the stop 3, to permit relative movement between the head 4 and the beam 1, when the beam 1 is held against movement with respect to the core 10. It is to be noted that the beam 1 is eccentrically disposed with respect to the parts which inclose it. This eccentric disposition of the beam 1 is, primarily, for the purpose of thickening the core 10 to one side of the beam, whereby a proper hold may be secured for set screw 24; although, obviously, the device would operate satisfactorily, if the beam 1 were differently positioned.

The operation of the device is as follows. The set screw 24 is loosened, so that the beam 1 may slide longitudinally in the core 10, and when the scriber 2 and the forward face of the stop 3 have been approximately spaced, the set screw 24 is manipulated to engage the beam 1, and to bind the beam 1 against relative movement with respect to the core 10. The nut 14 is then rotated through the medium of its milled head 16. The nut 14 cannot move forwardly, because it is engaged at one end by the shoulder 12 of the core 10. The nut cannot move rearwardly, saving to an infinitesimal extent only, because it is engaged by the washer 17, the washer 17 being maintained in place by the nut 21. Therefore, when the nut 14 is rotated, the engagement between the threaded neck 15 of the nut, and the threaded portion 7 of the neck 5, will serve to adjust slowly and to a nicety, the position of the head 4. When the desired adjustment has been secured, the sleeve 22 may be rotated upon the threaded portion 20 of the core 10, to engage the washer 17 and to force the washer into engagement with the head 16 of the nut 14, whereupon the forward end of the neck 15 will be bound against the shoulder 12, thus locking the parts against movement.

The engagement between the tongue 11 of the core 10 and the mortise 8 of the neck 5 of the stop 3, serves to prevent relative rotatory movement between the stop and the core 10. This movement is also prevented by reason of the fact that the set screw 24 engages through the slot 25 in the neck 5. However, the mortise and tenon engagement

8—11 will prevent rotatory movement between the parts, and permit the set screw 24 to be differently positioned, when desired.

Having thus described the invention, what is claimed is:—

1. A device of the class described comprising a beam; a stop slidable upon the beam; a core slidable upon the beam within the stop; means for preventing relative movement between the core and the beam; a nut rotatable upon the core and having threaded engagement with the stop; a washer slidable upon the core and adapted to engage the nut; and a binding member threaded upon the core and adapted to engage the washer.

2. A device of the class described comprising a beam; a stop slidable upon the beam; a core slidable upon the beam; means for preventing relative movement between the core and the beam; a nut rotatable upon the core, and having threaded engagement with the stop; a washer slidable upon the core and adapted to engage the nut; a second nut threaded upon the core at the rear of the washer and constituting a means for limiting the sliding movement of the washer; and a binding member threaded upon the core to the rear of the second nut and adapted to extend past the second nut, into engagement with the washer.

3. A device of the class described comprising a beam; a core slidable upon the beam; means for preventing relative movement between the core and the beam; a binding member threaded upon the core and having a recess in its forward end; a nut threaded upon the core and received within said recess; a washer upon the core in advance of the nut, and adapted to be engaged by the binding member for movement longitudinally of the core; a stop slidable upon the beam, and means for advancing and retracting the stop, the washer engaging said means to prevent movement of the stop.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN A. L. SNYDER.

Witnesses:

F. W. McLACHLIN,
J. W. ROTHINBURG.