

S. RISLEY.
TWEEZERS.
APPLICATION FILED JULY 12, 1915.

1,198,958.

Patented Sept. 19, 1916.

FIG. 1.

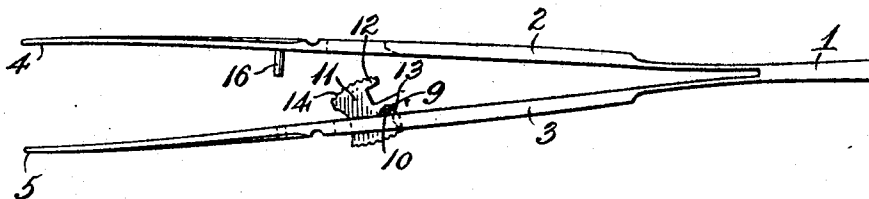


FIG. 2.

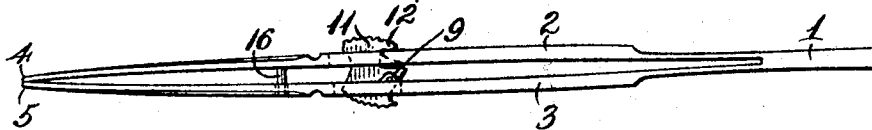


FIG. 3.

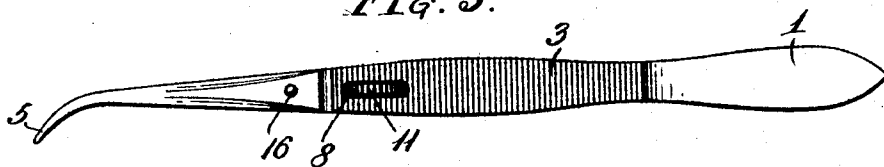
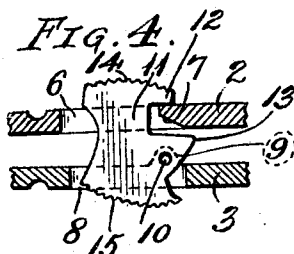


FIG. 4.



Witnesses:

A. L. Lord

D. Town

Inventor,
Sheridan Risley
by B. W. Brockwell
Att'y.

UNITED STATES PATENT OFFICE.

SHERIDAN RISLEY, OF CLEVELAND, OHIO, ASSIGNOR TO THE CLEVELAND DENTAL MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

TWEEZERS.

1,198,958.

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To all whom it may concern:

Be it known that I, SHERIDAN RISLEY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Tweezers, of which the following is a specification.

This invention relates generally to tweezers or pliers, and particularly to that class of devices utilized in holding small pieces of material.

More specifically the invention relates to tweezers or pliers utilized by dentists in holding small articles, such as filling materials, cotton, wire or similar articles, and it comprises a pair of spring jaws arranged to normally move into the open position and provided with a suitable locking device which automatically locks the two members when moved into clamping position irrespective of the position of the instrument.

The invention may be further briefly summarized as consisting in the construction and combination of parts hereinafter set forth in the following description, drawings and claims.

Referring to the drawings, Figure 1 is a side elevation of the device with the jaws open; Fig. 2 is a similar view with the jaws closed; Fig. 3 is a plan view; and Fig. 4 is a similar view showing the details of the lock.

In carrying out the invention any preferred form of device may be provided with my invention, so long as it possesses the necessary characteristics, but I have shown one arrangement which is in accordance with the invention, and in such embodiment 1 represents a suitable end portion provided with two spring clamping members 2 and 3 which are arranged to normally spring away from each other, as shown in Fig. 1. These two members are provided with suitable clamping ends 4 and 5 respectively of any preferred type, those in the drawings being shown curved to one side of the instrument. The clamping member 2 is provided with an opening 6 preferably in the form of a slot with a camming face 7 formed in the stock at the rear of the slot, as shown in Fig. 4, and for a purpose to be described. The other member is provided with a slot 8 somewhat longer but generally in alinement with the slot 6. On each side of this slot 8 are suitable ears 9 adapted to

receive a pivot pin 10 upon which is mounted a latching bar 11 engaging in the slot 8 and adapted for engagement in the slot 6 when the clamping members are closed.

The latching member is provided with a trip 13 arranged on the opposite side of the pin 10 and adapted to engage the underside of the member 2 and cause the hook 12 to move over the member 2. The latching member 11 is of such a shape that it provides a serrated finger portion 14 on the outside of the clamping member 2 when they are closed, and a serrated thumb portion 15 which normally extends to the outside of the clamping member 3. One of the clamping members may be provided with a pin 16 engaging in a suitable opening in the other member to hold the clamping members in alinement.

In operation, the user forces the clamping members toward each other with the result that the clamping member 2 engages the trip 13 and moves the latch member in clockwise direction, as shown in Fig. 4, with the result that the hook portion 12 engages above or on the outside of the clamping member 2 causing the clamping jaws to be locked in closed position, when the article being manipulated will be held rigidly between the two members. To release the members, the operator shifts the latch in a counter-clockwise direction, as shown in the drawings, by manipulating either one or the other of the finger pieces. It is obvious from the disclosure that the trip 13 will cause the latching of the clamping members irrespective of the position of the instrument.

Referring to Fig. 4, the serrated finger and thumb portions 14 and 15, when the jaws are locked, extend outwardly beyond the two jaws of the instrument. The latching member can, therefore, be operated directly from either side, making it unnecessary to shift the position of the hand relative to the instrument, or vice versa, to release the jaws. Moreover, the engaging faces of the hook portion 12 of the latch and the jaw 2 with which it coöperates lie in a plane parallel to the length of said jaw, when the instrument is in locked condition. Therefore, in releasing the jaws the engaging surfaces of the latch and jaw slide over each other without increasing the compres-

sion of said jaws, and without appreciable jar or vibration of the article being held.

Having described my invention, I claim:—

1. An instrument, comprising connected
5 jaws having a normal tendency to move
apart, one of said jaws carrying a pivoted
latching member arranged to engage the
other jaw when the jaws are closed to lock
the same, said latching member in locked
10 position extending outwardly beyond both
jaws whereby it may be actuated from either
side of the instrument.

2. An instrument, comprising connected
15 jaws having a normal tendency to move
apart, one of said jaws carrying a pivoted
latching member having a thumb piece ly-
ing on the outside of said jaw, said member
being arranged to engage the other jaw
when said jaws are closed to lock the same
20 and having a second thumb piece lying on
the outside of the other jaw when said jaws
are locked, whereby the latching member
may be actuated from either side of the in-
strument.

25 3. An instrument, comprising connected
jaws having a normal tendency to move
apart, one of said jaws carrying a pivoted
latching member having a hook portion ar-
ranged to engage a portion of the other jaw
30 when the jaws are closed to lock the same,

the pivot of said member lying opposite said
engaging portions and the engaging sur-
faces of said latching member and jaw lying
in a plane parallel to the length of said jaw,
whereby the latching member may be re- 35
leased without increasing the compression
of said jaws.

4. An instrument, comprising connected
jaws having a normal tendency to move
apart, one of said jaws carrying a pivoted 40
latching member having a hook portion ar-
ranged to engage a portion of the other jaw
when the jaws are closed to lock the same,
the pivot of said member lying opposite said
engaging portions and the engaging sur- 45
faces of said latching member and jaw lying
in a plane parallel to the length of said jaw,
whereby the latching member may be re-
leased without increasing the compression
of said jaws and said latching member be- 50
ing provided with two thumb pieces lying
outside of the two jaws, whereby it may be
operated from either side of the instrument.

In testimony whereof I affix my signature
in presence of two witnesses.

SHERIDAN RISLEY.

Witnesses:

ALTON H. BEMIS,

A. L. LORD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."