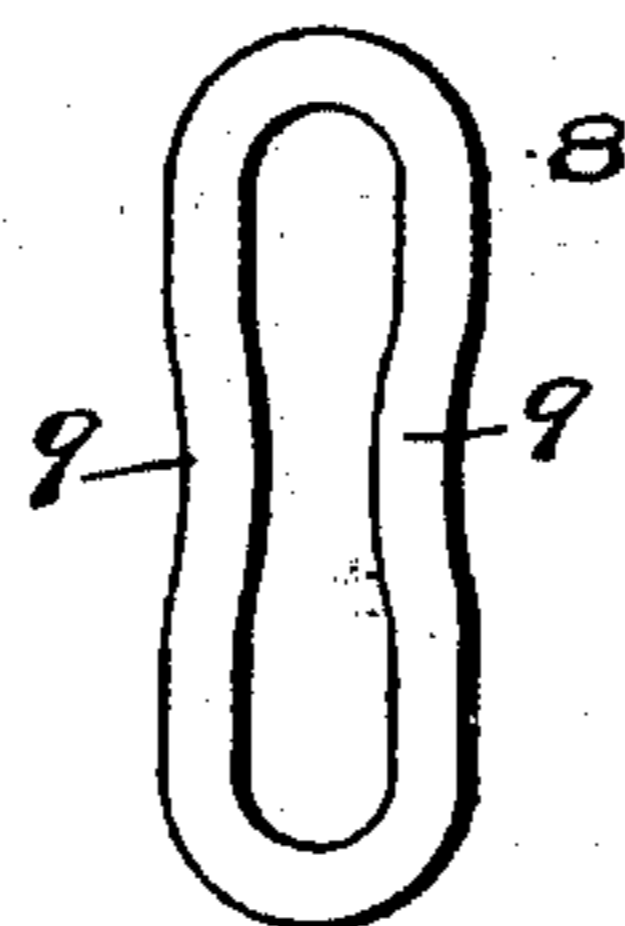
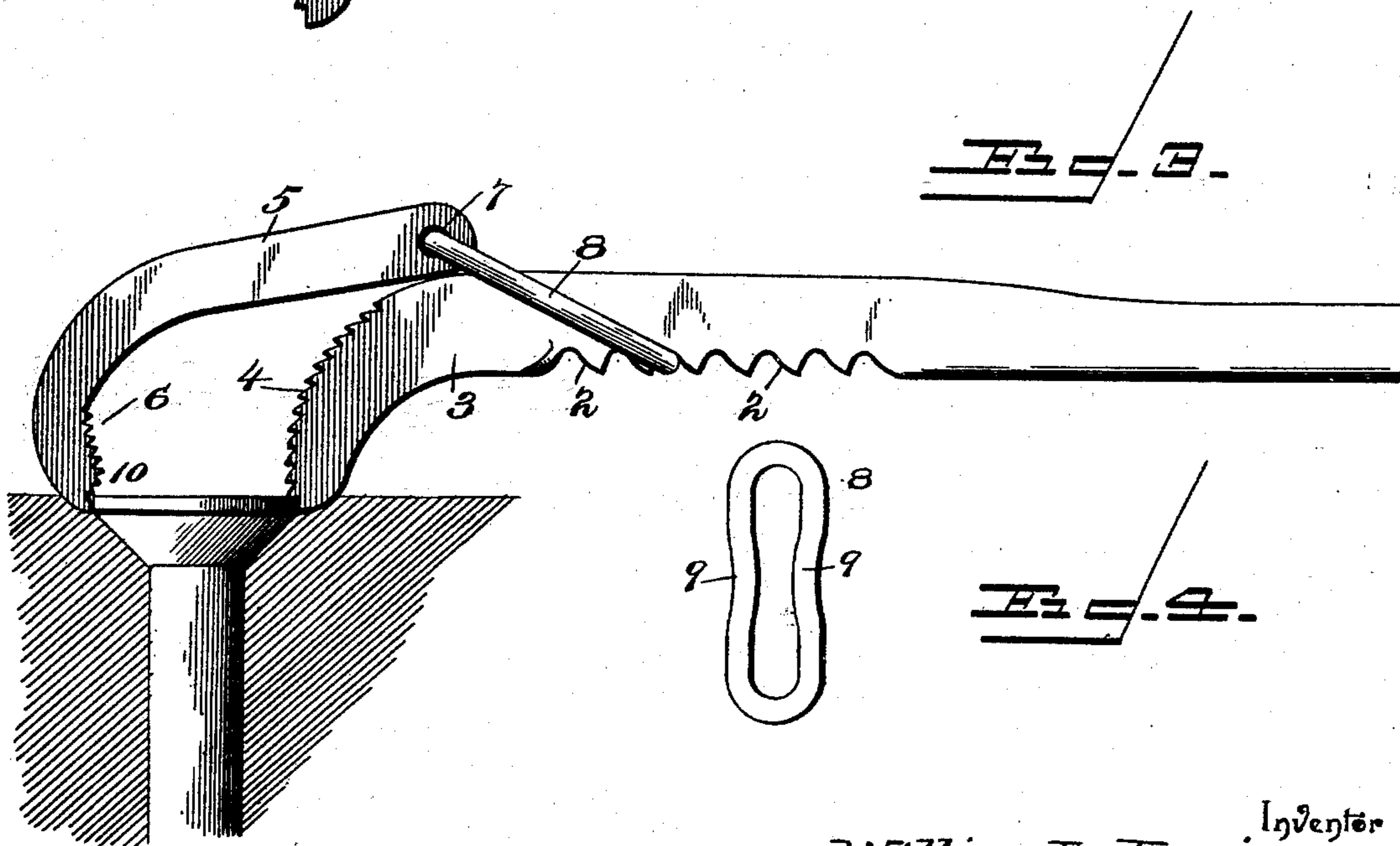
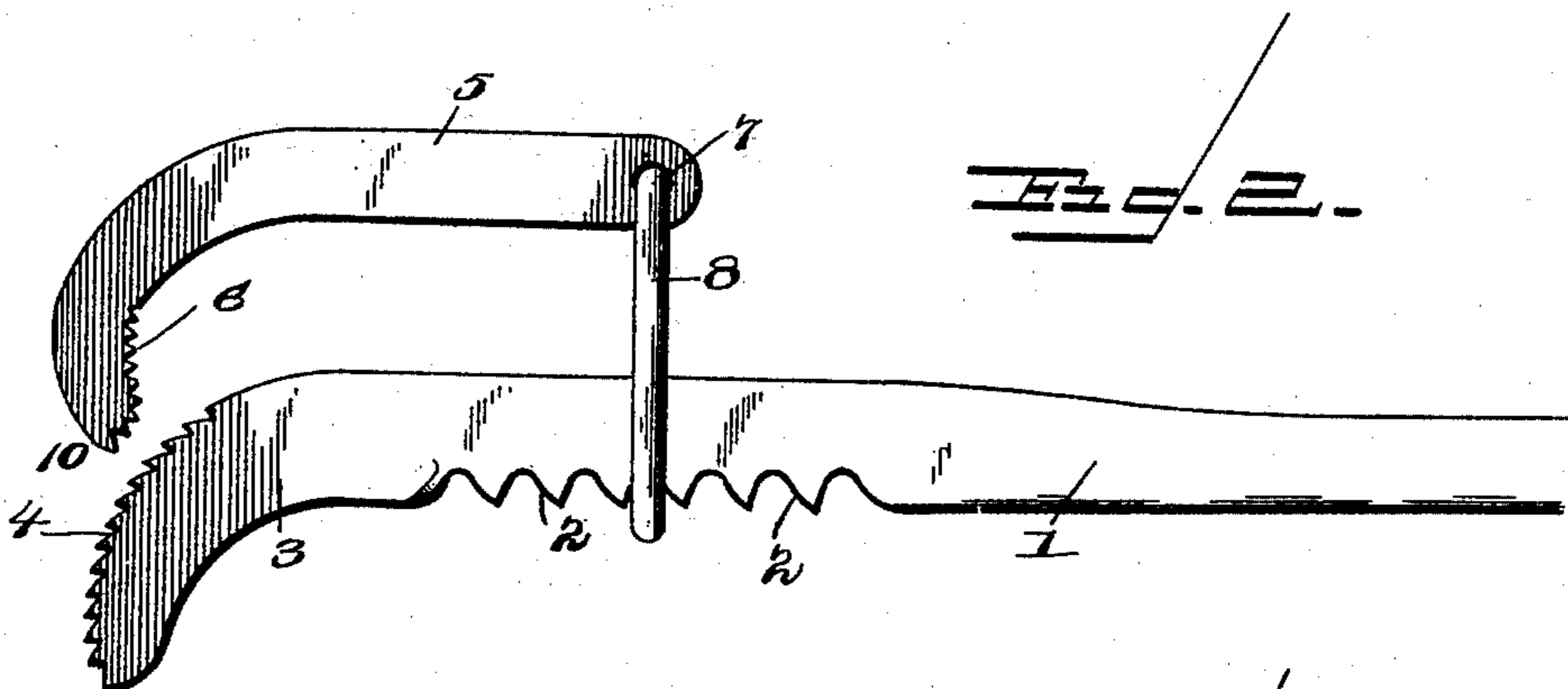
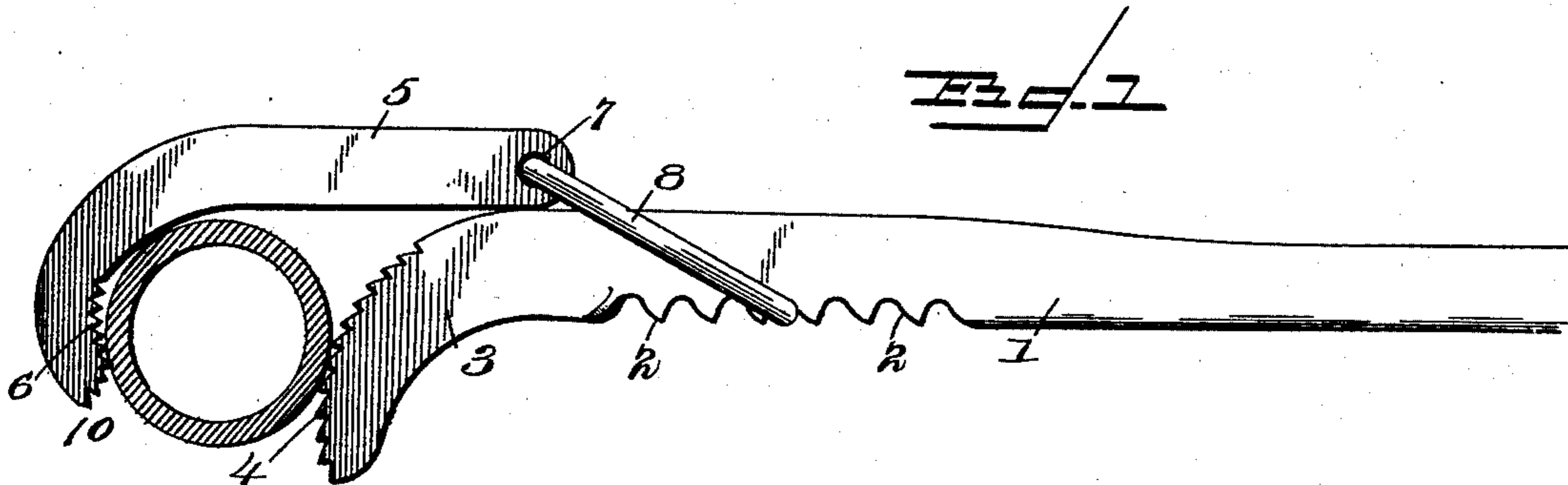


(No Model.)

W. A. JENNINGS.
PIPE WRENCH.

No. 509,909.

Patented Dec. 5, 1893.



Inventor
William H. Jennings,

Witnesses
C. H. Stewart
O. D. [Signature]

By [Signature] Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM A. JENNINGS, OF METCALF, ILLINOIS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 509,909, dated December 5, 1893.

Application filed August 15, 1893. Serial No. 483,203. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. JENNINGS, a citizen of the United States, residing at Metcalf, in the county of Edgar and State of Illinois, have invented a new and useful Pipe-Wrench, of which the following is a specification.

My invention relates to improvements in pipe wrenches, and it has for its object to provide a simple, inexpensive and efficient wrench capable of extensive adjustment and so constructed as to prevent unnecessary vibration of parts, and to enable it to be used to engage and hold the countersunk heads of bolts.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings: Figure 1 is a side view of a wrench embodying my invention. Fig. 2 is a similar view showing the connecting link arranged perpendicular to the shank as seen when adjusting the movable jaw. Fig. 3 shows the wrench applied in the operative position to the countersunk head of the bolt. Fig. 4 is a detail view of the connecting link.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the shank, which is provided in one edge with a series of notches 2, and is provided at its extremity with the main jaw 3, which is integral with the shank and is preferably quadrant-shaped. The exterior or convex surface of this jaw is toothed, as shown at 4.

5 represents the movable or adjustable jaw which is hook-shaped with its inner or concave surface toothed, as shown at 6, the rear end of said jaw being provided with an eye 7, which is engaged with one end of an endless link 8, so arranged that the opposite end meshes with the notches 2. This link is pinched or contracted at its center, whereby its sides 9 are bowed inwardly or toward each other to contact with opposite sides of the

shank. When the jaws are in engagement with a pipe or rod, as shown in Fig. 1, the link is arranged at an inclination, thereby bringing the contracted portion of the same into engagement with the shank and locking the link against lateral vibration. When, however, it is required to adjust the movable jaw it should be moved backwardly in order to arrange the link perpendicular to the shank, in which position the link is capable of slipping easily, inasmuch as the contracted portions of the sides thereof are arranged above the rear or upper edge of the shank. The adjustable jaw terminates abruptly at its free end to form a flattened nose 10, which, when the jaws are in operative position, is disposed approximately parallel with the opposite tip of the fixed jaw; and the serrations of the jaws are extended to the extremities thereof, whereby, as shown in Fig. 3, the head of a countersunk bolt may be engaged upon opposite sides by the nose of the adjustable jaw and the tip of the fixed jaw to enable the bolt to be held while the tap is being removed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, what I claim is—

In a wrench, the combination of a shank provided with notches, a fixed convex jaw provided with serrations, a movable concave jaw provided with serrations, and an endless link loosely connected to the rear end of the movable jaw and embracing the shank to engage the notches thereof, said link being contracted at an intermediate point to engage the opposite surfaces of the shank to prevent vibration, substantially as specified.

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

WILLIAM A. JENNINGS.

Witnesses:

CHESTER OGDAN,
C. B. ELLIOTT.