No. 621,930. Patented Mar. 28, 1899.

F. A. MEISCHNER.

MOUNTING DEVICE FOR SCREW TAPS.

(Application filed June 1, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

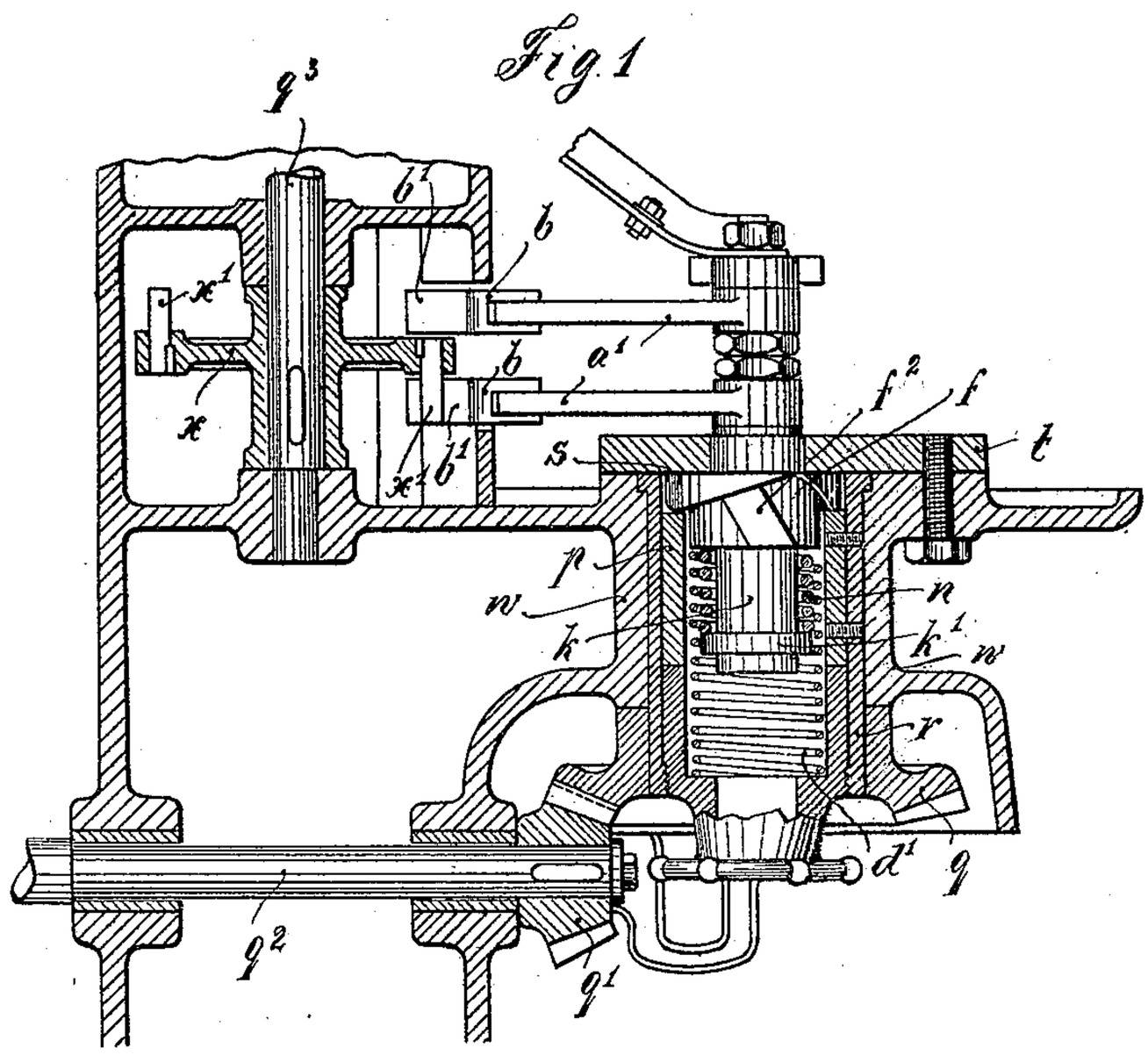
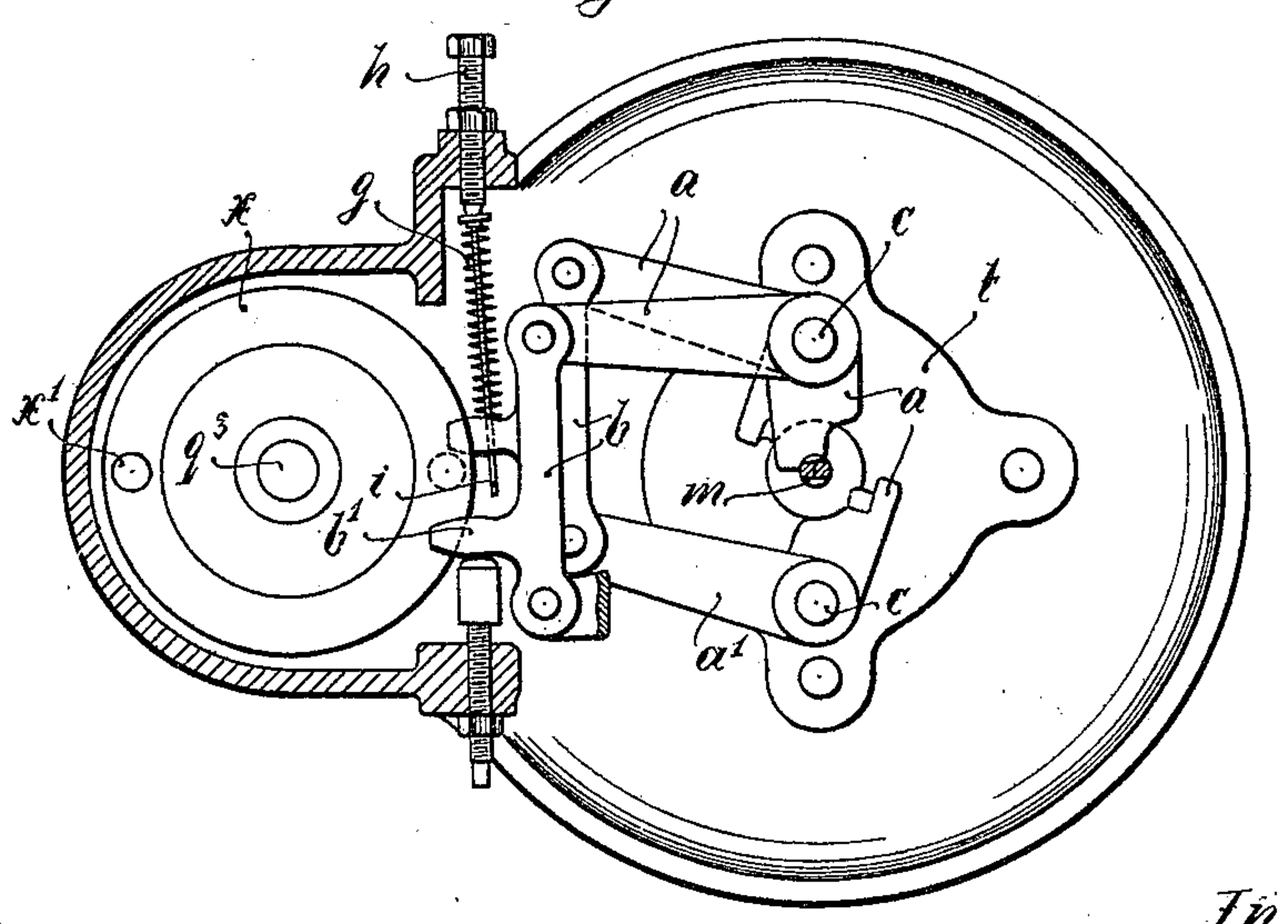


Fig. 2



Witnesses:

Paul Seiler.

Arthur Walther

Inventor

Friedrich August Meischner

by Carl Groner & Co

Attorney

No. 621,930. Patented Mar. 28, 1899.

F. A. MEISCHNER.

MOUNTING DEVICE FOR SCREW TAPS.

(Application filed June 1, 1898.)

(No Model.) 2 Sheets—Sheet 2.

Fig 4

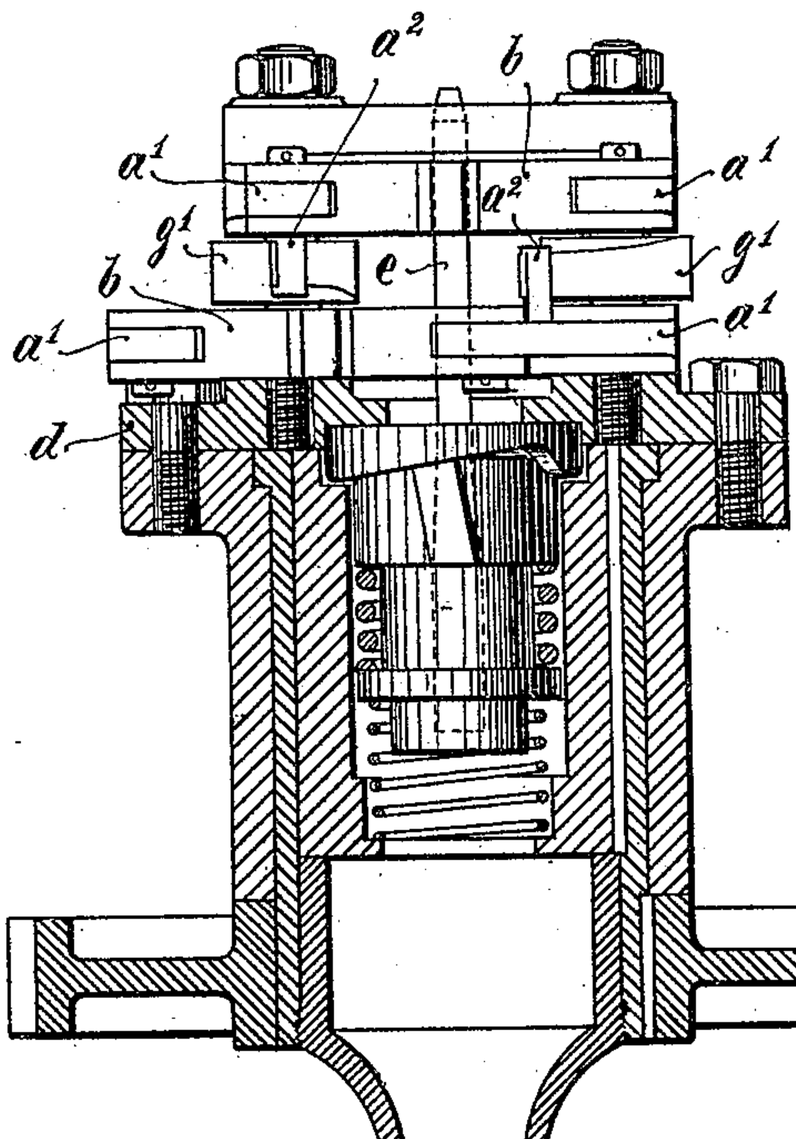


Fig 3.

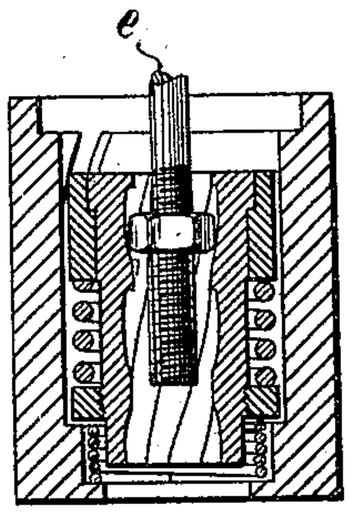
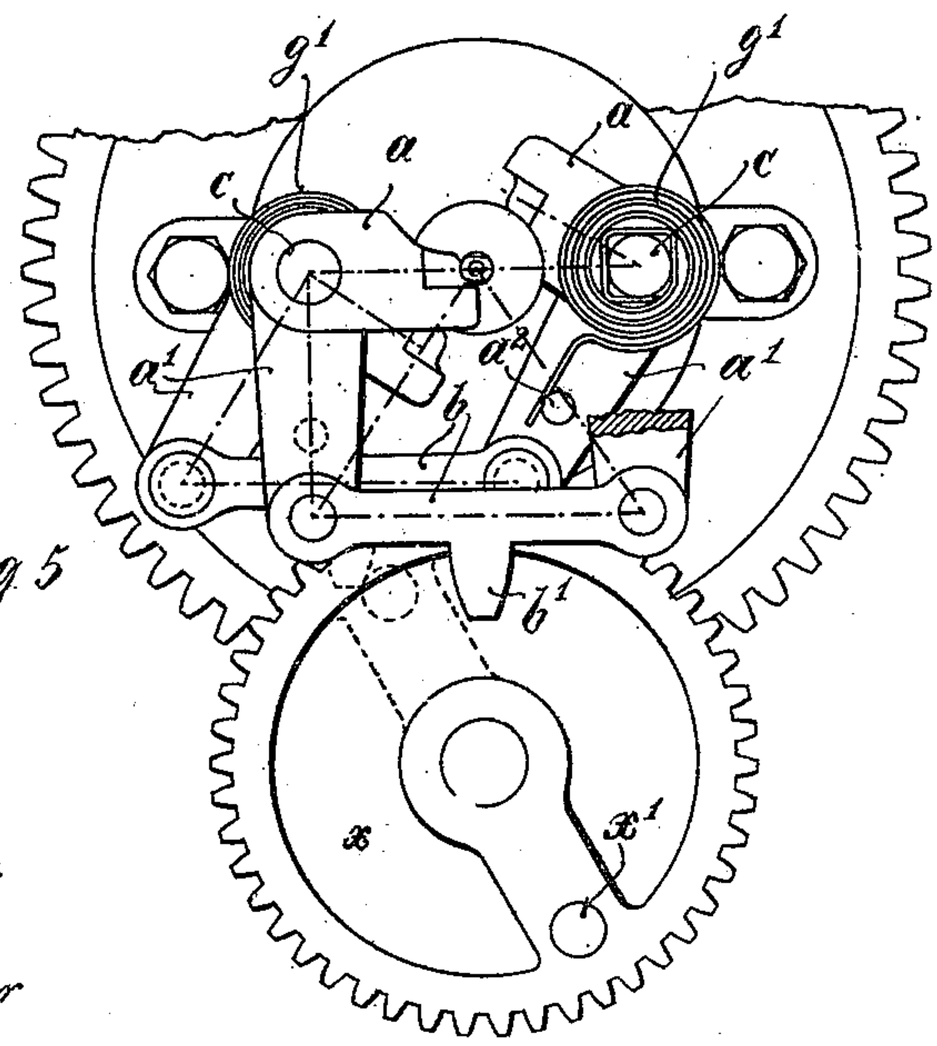


Fig 5



Witnesses:
Arthur Walther
Paul Seiler

Inventor
Friedrich August Meischner
by Carl Gronert
Attorney.

UNITED STATES PATENT OFFICE.

FRIEDRICH AUGUST MEISCHNER, OF CHEMNITZ, GERMANY.

MOUNTING DEVICE FOR SCREW-TAPS.

SPECIFICATION forming part of Letters Patent No. 621,930, dated March 28, 1899.

Application filed June 1, 1898. Serial No. 682,313. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH AUGUST MEISCHNER, a subject of the King of Saxony, residing at 120 Zschopauerstrasse, Chemnitz, in the Kingdom of Saxony, German Empire, have invented a new and Improved Mounting Device for Screw-Taps, of which the following is an exact specification.

This invention relates to a mounting device for screw-taps which is intended to be used especially in connection with a nut-threading machine.

The object of my invention is to mount the screw-tap in such a manner that the nut to be threaded may be shoved upon the tap at one end of the latter and leave it at the other end, so that the nut passes over the whole length of the screw-tap. The latter is stationary, and there are, consequently, special means provided for rotating the nut and moving it lengthwise over the screw-tap as soon as it arrives at the threaded portion of the tap. These means belong, however, to the nut-threading machine proper and do not form part of the present invention, wherefore I abstain from describing said means. The nut-threading machine which I have shown connected with my new and improved mounting device for the screw-tap forms the subject-matter of my United States application, Serial No. 682,312, to which I refer with regard to the details of the machine.

Concerning the details of the mounting device in question, I refer to the accompanying drawings, in which similar letters denote similar parts throughout the different views, and in which—

Figure 1 is a side view, partly in section. Fig. 2 is a plan. Fig. 3 shows the nut located upon the threaded portion of the screw-tap. Fig. 4 is a front view of a slightly-modified form of construction, partly in section, the parts in section belonging, however, to the nut-threading machine, as is also the case with Figs. 1 and 3; and Fig. 5 is a plan of the form of construction shown in Fig. 4, a part of the large cog-wheel being broken away.

My improved mounting device for screw-taps consists of four bell-crank levers having each a shorter arm a and a longer arm a'. These levers are arranged in pairs, and the arms a' of each pair are connected by a link b, having a lateral projection b'. The levers are fulcrumed upon pivots c, projecting forth from a base-plate t, and the arrangement of said pairs of levers upon said pivots is such that one pair is located above the other, and the two shorter arms a of each pair move simultaneously in opposite directions when the arms a' or the connecting-link b are or is moved in one or the other direction. In the position shown in Figs. 2 and 5 the lower arms a have left the screw-tap e, but the upper arms a (one of the upper levers is left away in these figures in order to represent more distinctly the position of the respective lower lever at that time) have grasped the screw-tap between them, so that the latter remains in proper working position. In order to continually secure the screw-tap in this position, it is of course necessary that the screw-tap is always held by at least one pair of the lever-arms a, and each pair of levers should, therefore, be opened only after the other pair has been closed. To effect such a manner of operation of the levers, I prefer to make use of a rotary disk x, having two projections or pins x'. The latter are located upon diametrically opposite sides of the disk x, and one pin extends in an upward and the other in a downward direction. The plane of the disk x is located between the planes of the pairs of levers aforedescribed, and the position of the projections b' of the connecting-links b of said levers is such that the lower projection may be actuated by the lower pin x', whereas the upper projection may be actuated by the upper pin. The direction of rotation of the disk x is opposite to that of the hands of a clock, and the disk x or the pins x' of the same, respectively, do not, therefore, effect the closing of the levers, but the opening of the same: To close the levers, the connecting-links b or the projections b' of the same, respectively, are put under the action of springs g, one end of which bears against said projections, whereas the other end bears against an adjusting-screw h. The latter serves also for holding one end of a rod i, the other end of which passes through a hole in the respective projection b'.

In the modified form of construction represented in Figs. 4 and 5 the helical springs g

of Fig. 2 are replaced by spiral springs g', which are held by the upper ends of the pivots c and which bear against special pins a^2, screwed into the lever-arms a'. In all other respects the form of construction shown in Figs. 4 and 5 is similar to that shown in Figs. 1 and 2. The actually-existing deviations refer only to the nut-threading machine, and are thus described in my United States application, Serial No. 682,312, aforementioned.

The nut to be threaded is shoved upon the projecting upper end of the screw-tap e and is placed upon the closed arms a of the upper pair of levers. These arms then open and the nut glides down along the screw-tap until it is stopped by the lower arms a. Thereafter the upper arms close, so as now to grasp the screw-tap, and the lower arms open, so as to let the nut glide farther down along the screw-tap until it arrives at the threaded portion of the same. The nut has then come into the reach of the working parts of the nut-threading machine and is now further worked and finished in and by the same.

Having now described my invention, what I desire to secure by Letters Patent of the United States is—

1. In a mounting device for screw-taps, the combination with at least two pairs of levers arranged one above the other, and being each adapted to grasp the screw-tap between them, of links connecting each the two levers of each pair, and means for actuating said links alternately so as to simultaneously open the levers of one pair only after the levers of the other pair have been simultaneously closed, for the purpose as described.

2. In a mounting device for screw-taps, the combination with at least two pairs of levers arranged one above the other, and being each adapted to grasp the screw-tap between them, of a rotary disk located in a plane between said pairs of levers and projections arranged upon said disk so as to open one pair of levers only when the other pair has been closed, for the purpose as described.

3. In a mounting device for screw-taps, the combination with at least two pairs of levers arranged one above the other, and being each adapted to grasp the screw-tap between them, of links connecting each the two levers of each pair, projections forming parts of said links, a rotary disk located in a plane between said pairs of levers and projections arranged upon said disk, and adapted to act upon the projections of said links, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FRIEDRICH AUGUST MEISCHNER.

Witnesses:
EUGEN NABEL,
A. REUCHER.