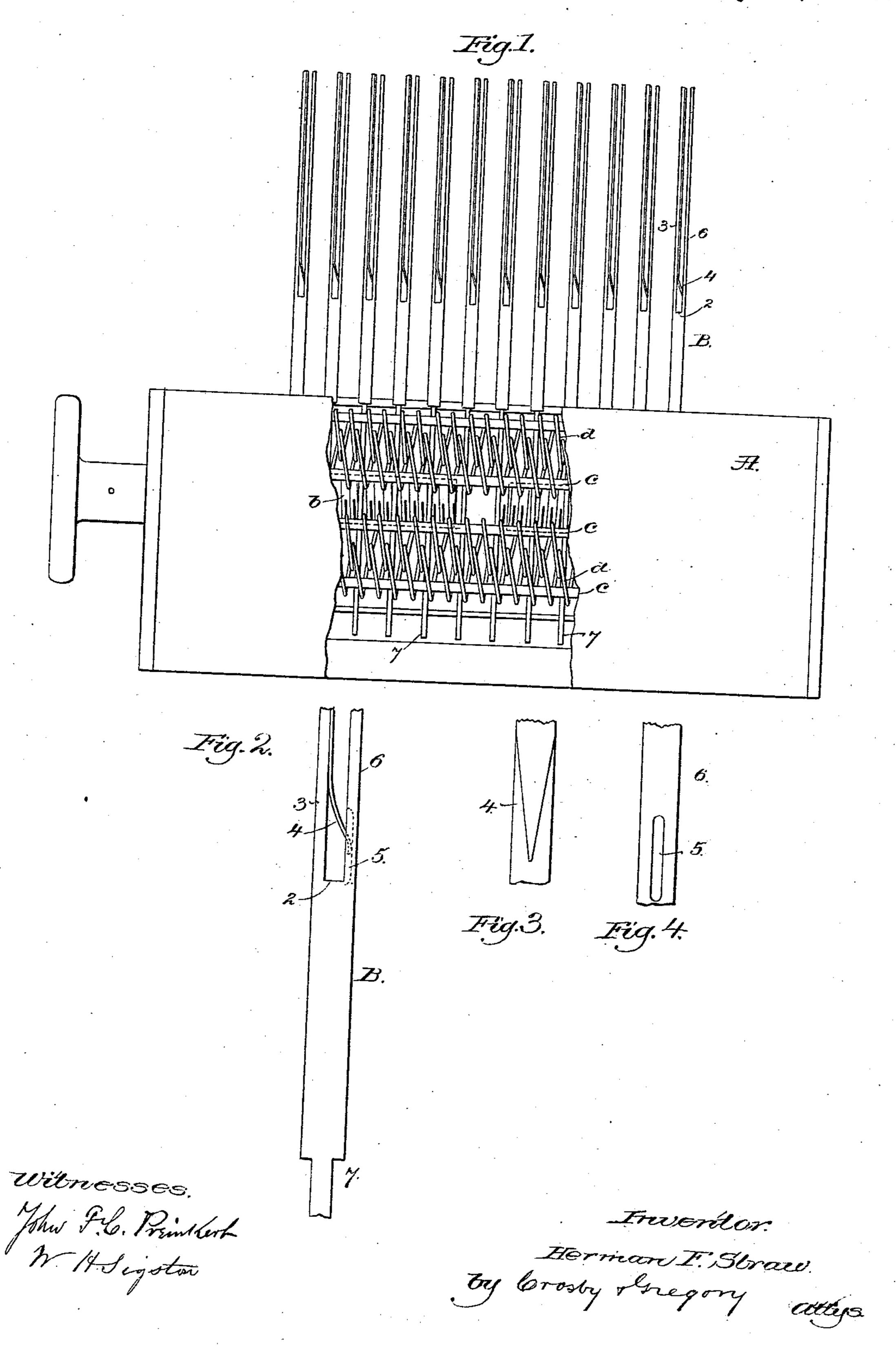
(No Model.)

H. F. STRAW.

ADJUSTABLE REED FOR WARPING MACHINES.

No. 322,401.

Patented July 14, 1885.



UNITED STATES PATENT OFFICE.

HERMAN F. STRAW, OF MANCHESTER, NEW

ADJUSTABLE REED FOR WARPING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 322,401, dated July 14, 1885.

Application filed February 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, HERMAN F. STRAW, of Manchester, county of Hillsborough, State of New Hampshire, have invented an Improve-5 ment in Adjustable Reeds for Warping-Machines, of which the following description in connection with the accompanying drawings is a specification, like letters on the drawings representing like parts.

This invention is an improvement on the mechanism described in application Serial No. 102,276, to which reference may be had.

My invention consists in a reed-dent having a shoulder to support the warp as the 15 dent is lifted, and a finger which yields to admit a warp-thread to be placed on the shoulder, and then closes above and prevents the warp-thread from being lifted completely from the dent.

Figure 1 in elevation, but partly broken out, shows a short reed containing dents embodying my invention. Fig. 2 is a partial side elevation enlarged of one of my improved dents; and Figs. 3 and 4 are respectively de-25 tails of the inner faces of both the upper arms or forks of the forked dent, the one showing the finger and the other the groove.

The reed-box A, the screw b, the rods c, and the spiral springs d are all of usual con-30 struction, and substantially as in United States Patent No. 221,799, dated November 18, 1879. My improved forked dent B has a shoulder, 2, on which the thread rests when the reed is

lifted in taking a lease, and the arm 3 of the dent at a point above the shoulder 2 has at- 35 tached to it a finger, 4, which is free to yield as the warp-thread is placed on the shoulder of the dent, said finger thereafter returning to its normal position and acting to prevent the warp-thread being lifted from the top of 40 the dent, as the dent and reed are drawn down below the general plane of the warpthreads in taking a lease. The finger as herein shown is represented as a bent spring, the lower end or point of which normally rests 45 in the notch or groove 5 of the opposite part 6 of the dent. The shank 7 of the dent is inserted, as shown in the drawings, through the springs d d, in usual manner, so that by turning the screw and stretching or permitting 50 the spring to contract the dents may be spaced as desired.

I claim— As an improved article of manufacture, a

dent having a shoulder, 2, and a finger lo- 55 cated above the shoulder, the shoulder and finger co-operating to retain the warp-thread in the space of the dent, substantially as described.

In testimony whereof I have signed my 60 name to this specification in the presence of two subscribing witnesses. HERMAN F. STRAW.

Witnesses: JAMES B. STRAW, JOHN P. YOUNG.