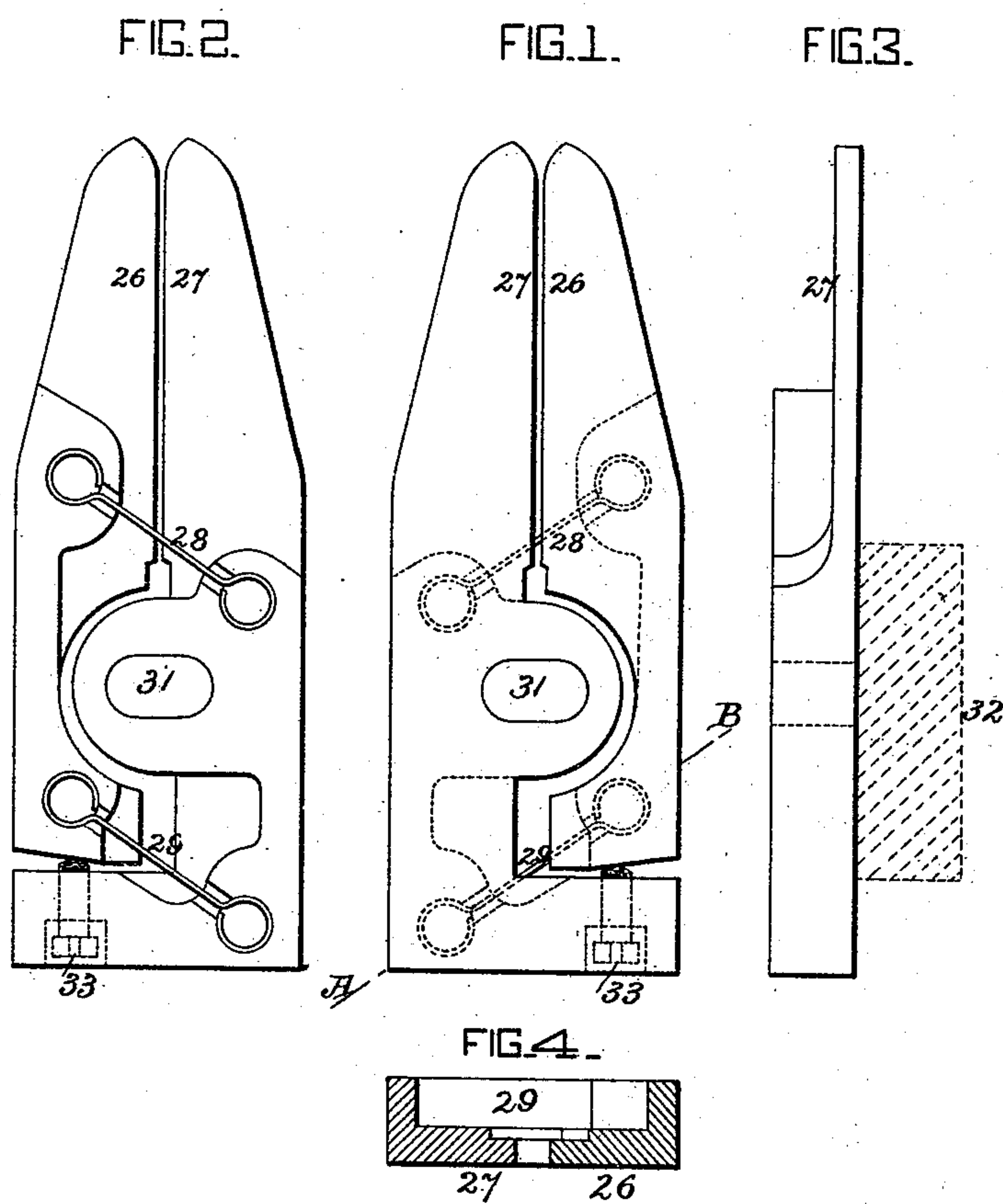


(No Model.)

T. A. BOYD.
ADJUSTABLE YARN CLEARER.

No. 543,288.

Patented July 23, 1895.



WITNESSES:

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S. C. Connor

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BY

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UNITED STATES PATENT OFFICE.

THOMAS A. BOYD, OF GLASGOW, SCOTLAND.

ADJUSTABLE YARN-CLEARER.

SPECIFICATION forming part of Letters Patent No. 543,288, dated July 23, 1895.

Application filed December 3, 1894. Serial No. 530,665. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ALEXANDER BOYD, a subject of the Queen of Great Britain and Ireland, and a resident of Glasgow, county of Lanark, Scotland, have invented certain Improvements in Adjustable Yarn-Clearers for Clearing or Cleaning and Guiding Yarn in the Process of Winding, of which the following is a specification.

My invention relates to adjustable yarn-clearers, and has for its object to make the adjustment of the gage of the slit very exact, yet very easily changed.

In the accompanying drawings, Figures 1 and 2 are views of two opposite sides of the clearer in elevation. Fig. 3 is an edge view looking from the left-hand side of Fig. 1, and Fig. 4 is a section taken on the line A B of Fig. 1.

The yarn to be wound is passed through the slot formed by the two parallel clearing-edges of the plates 26 and 27. These plates are held together by parallel bars or links 28 and 29, which are preferably of spring metal and so fixed at their ends to the two plates as to tend to keep the plate 26 pressed away from the plate 27 and downward against the screw 33.

The plate 27 is a fixture secured by a bolt passing through the slot 31 to any convenient part of the framing of the machine on which the clearer is used. The screw 33 passes through the fixed plate 27 and bears against the lower part of the movable plate 26. By turning this screw the plate 26 is moved up or down to diminish or increase the gage of the slit formed by the two contiguous clearing-edges through which the yarn is to be passed to be cleared. It will be seen that by this arrangement the clearing-edges are kept firmly apart at the required distance by rea-

son of the spring-links tending always to press the plate 26 against the screw 33, so that the two plates 26 27 will be self-separating when the screw 33 is unscrewed, and so that the plates will maintain their relative positions when adjusted, no matter in what position the clearer itself is placed.

I claim as my invention—

1. An adjustable clearer for clearing yarn in the process of winding, comprising a stationary plate and a movable plate having contiguous clearing edges, in combination with parallel links connecting the two plates and means for adjusting the movable plate, substantially as set forth.

2. An adjustable clearer for clearing yarn in the process of winding, comprising a stationary plate and a movable plate having contiguous clearing edges, in combination with parallel spring links connecting the two plates and means for adjusting the movable plate against the action of the spring links, substantially as set forth.

3. An adjustable clearer for clearing yarn in the process of winding comprising a stationary plate and a movable plate having contiguous clearing edges in combination with parallel spring links connecting the two plates, and an adjusting screw carried by one plate and bearing against the other plate in opposition to the action of the spring links, substantially as set forth.

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

T. A. BOYD.

Witnesses:

W. GORDON SHAW,
PETER H. WADDELL.