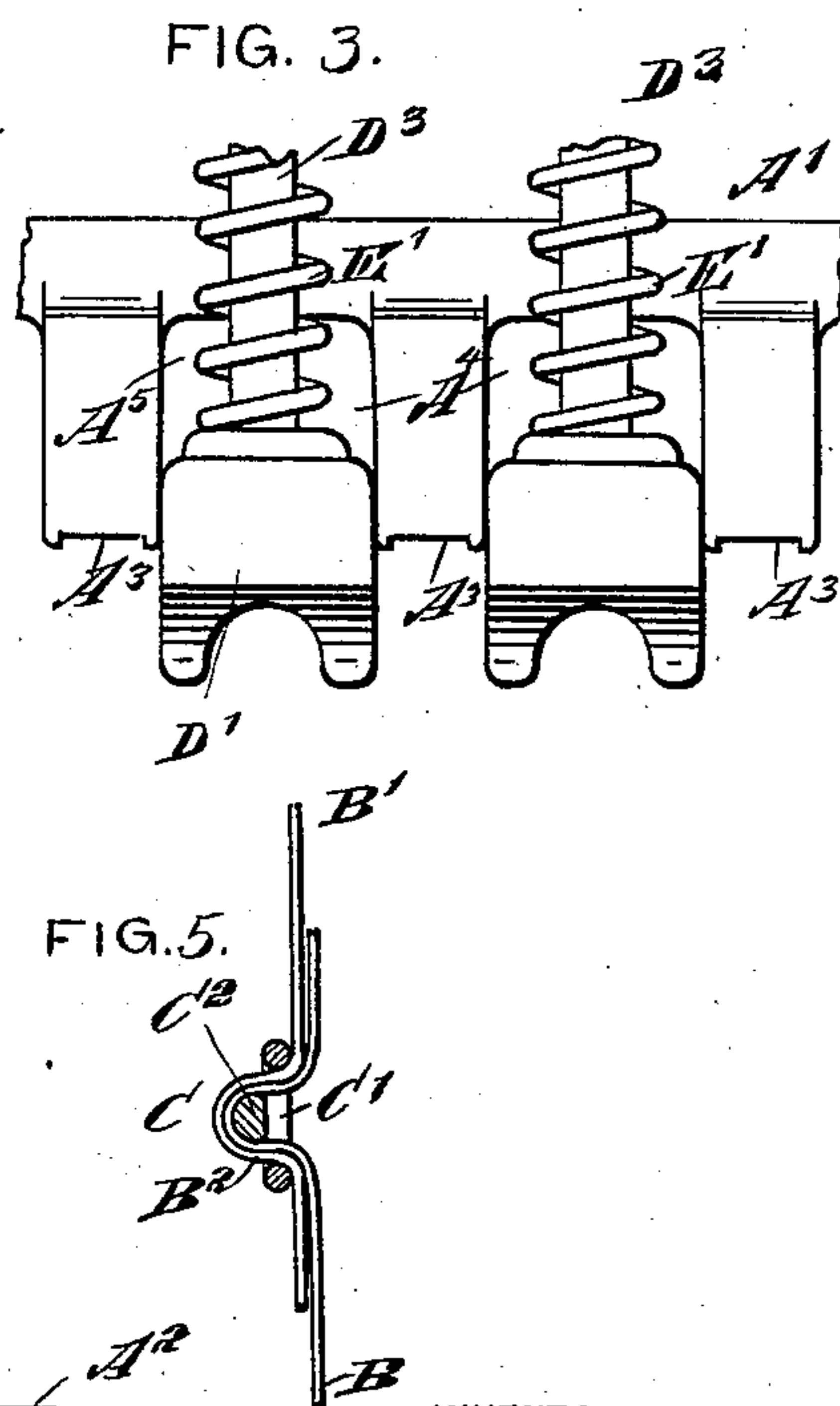
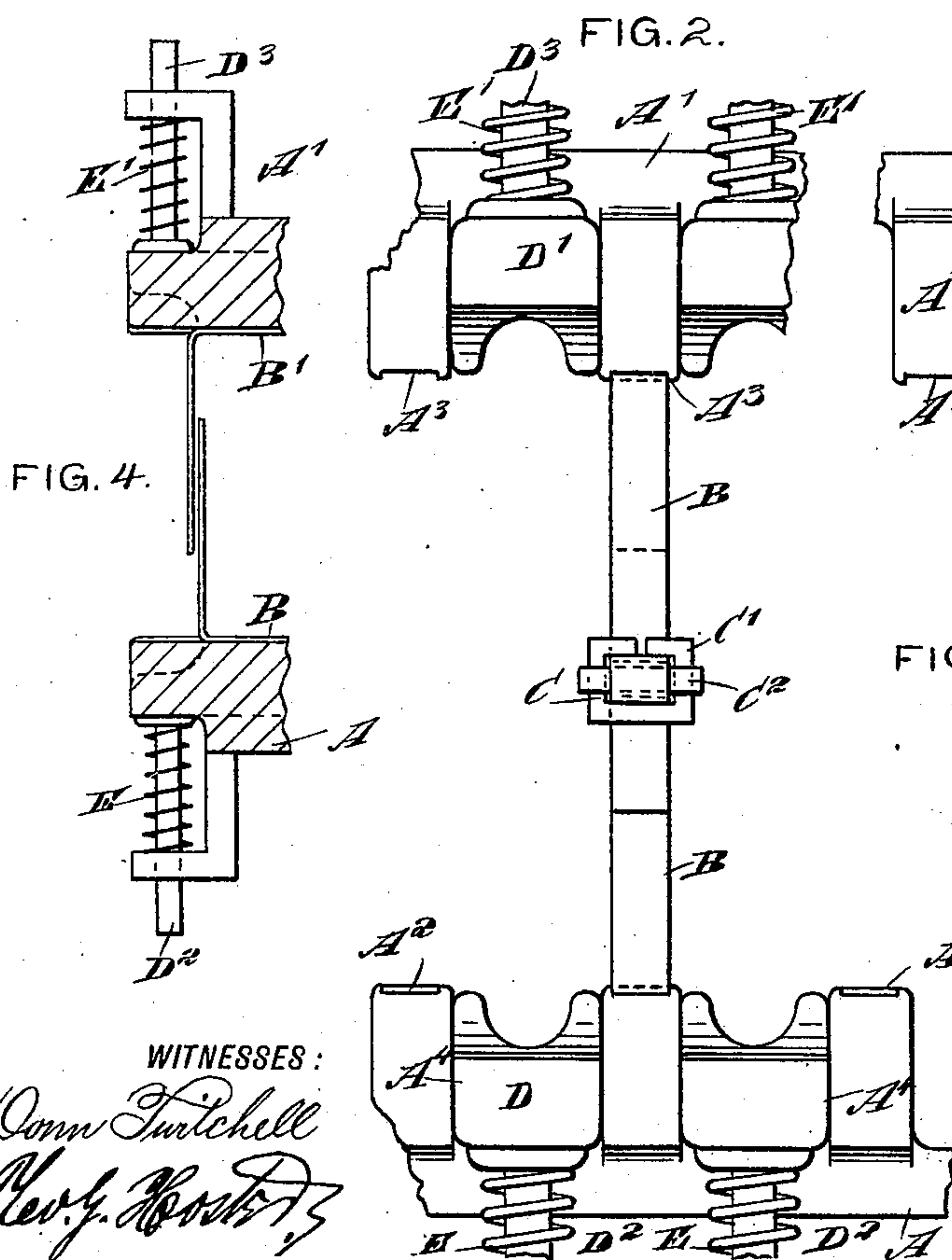
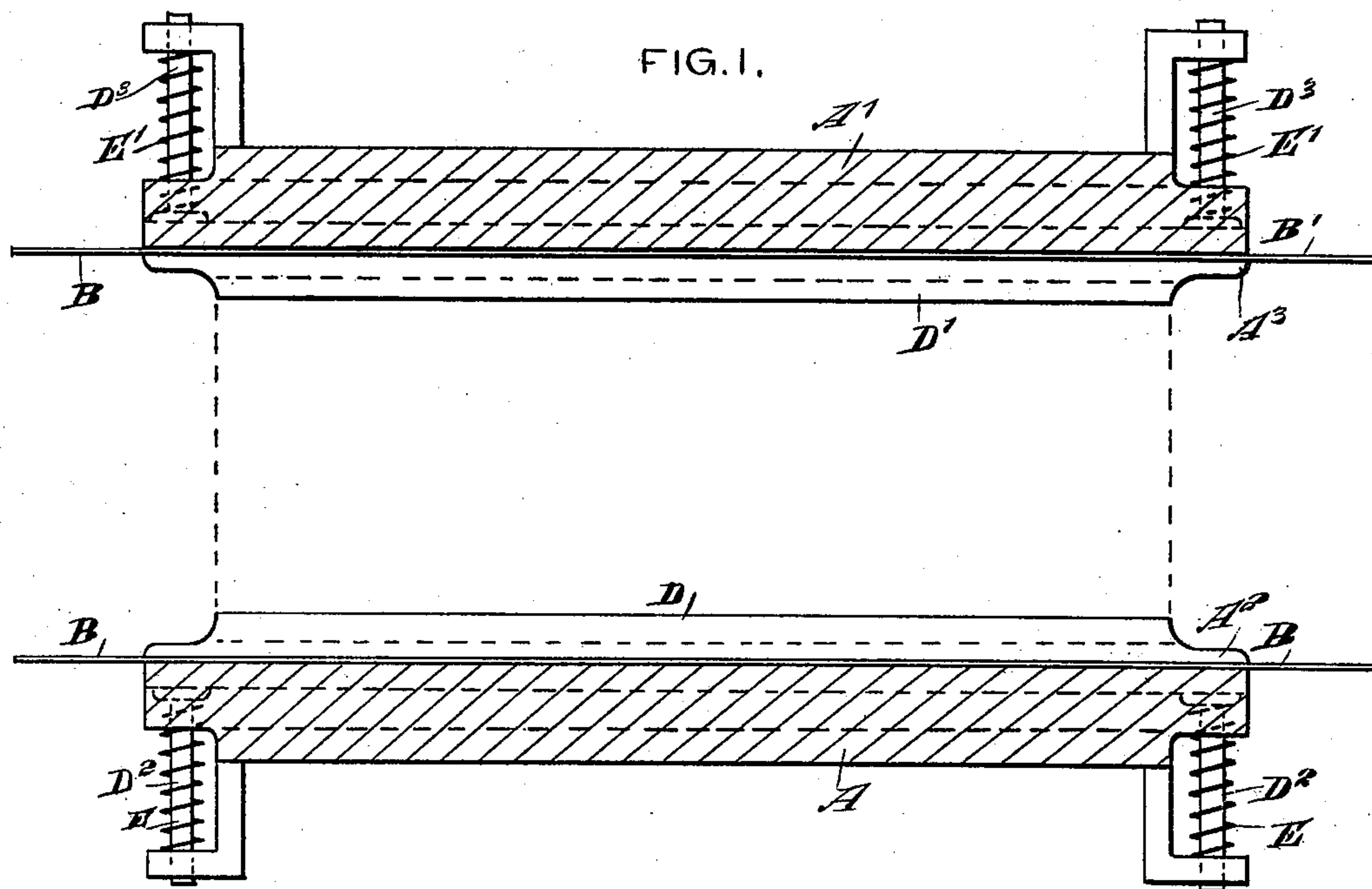


(No Model.)

J. L. DUVAL.
BALE BAND TIGHTENER.

No. 591,333.

Patented Oct. 5, 1897.



WITNESSES:
Donn Twitchell
Rev. J. R. R. R.

INVENTOR
J. L. Duval.
BY *Munnif*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN L. DUVAL, OF HOUSTON, TEXAS.

BALE-BAND TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 591,333, dated October 5, 1897.

Application filed October 1, 1896. Serial No. 607,526. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. DUVAL, of Houston, in the county of Harris and State of Texas, have invented a new and Improved Bale-Band Tightener, of which the following is a full, clear, and exact description.

The invention relates to baling-presses; and its object is to provide a new and improved bale-band tightener which is simple and durable in construction and arranged to permit the operator to conveniently place the bands in position and fasten the ends together after the bale is pressed.

The invention consists of platens, each provided with grooves or recesses for the bands, and spring-pressed bars extending between the grooves or recesses and beyond the face of the platen and serving as guides for the bands and a support for the bale before it is compressed, the bars being adapted to recede into recesses formed in the platen when pressure is brought to bear upon the same.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a transverse section of the improvement. Fig. 2 is an end elevation of the same with the guide-bars in a receding position. Fig. 3 is a similar view of part of the same with the guide-bars in a different position. Fig. 4 is a sectional side elevation of the improvement, showing the ends of the bands overlapping for receiving the fastener; and Fig. 5 is a sectional side elevation of the bale-band-fastening device.

On the opposite faces of the lower and upper platens A A' are formed transversely-extending recesses or grooves A² A³, respectively, adapted to receive the bands B B' for tightening the bale after the same is pressed between the platens in the usual manner. The bands B B', arranged opposite each other, have their ends overlapping when the bale is pressed, as shown in Fig. 4, and then the overlapped ends of the bands are fastened together by a fastening device C. (Shown in

Figs. 2 and 5 and more fully described hereinafter.)

The bale-bands B B' are arranged between bars D D', respectively, fitted to slide in recesses A⁴ A⁵, respectively, formed in the platens A A', next to the band-receiving recesses A² A³. The bars D D' extend normally beyond the inner faces of the platens, as illustrated in Figs. 1 and 3, so that the bands lie between adjacent bars, each of which extends throughout the length of the platen, as indicated in Fig. 1. The bars D D' thus act as guides for the bands when they are passed between the platens and into the grooves or recesses A² A³. The outer ends of the guide-bars D D' are provided with guide-rods D² D³, respectively, fitted to slide in brackets on the platens and pressed on by springs E E', respectively, so as to hold the said guide-bars normally in an innermost position, as shown in Fig. 3. Now it will be seen that when the press is in use and the material is between the platens and pressed by the same in the usual manner then the bars D D' will be forced back into their recesses A⁴ A⁵ until the faces of the bars are flush with the faces of the platens, as indicated in Fig. 2, and the material is formed into the bale with the bands B B' extending over the top and bottom of the bale and with the ends projecting beyond the ends of the bale, as indicated in Fig. 1. The band ends are then bent downwardly, so as to overlap, as indicated in Fig. 4, and then a suitable tool is employed for forming a loop on the overlapping ends, as is plainly shown in Fig. 5, and this loop is engaged by a link C' and a key C² for fastening the ends of the band together, as indicated in Figs. 2 and 5. When the platens recede to permit of removing the bale, then the guiding-bars D D' again move into their outermost position (shown in Figs. 1 and 3) and the operation is then repeated for a second bale. It will be seen that the grooves A² A³ form fixed guides for the bands to rest on after they are passed between the platens, being guided between the bars D D', the grooves for the bands being of a depth corresponding to the thickness of the band. The grooves in the bars D D' serve to allow the escape of air from the top and bottom of the bale in compressing. The ends

of the bars D D' are chamfered, as shown in Fig. 1, to relieve the bar from strain during the compression and to facilitate picking up of the band for tightening the ends thereof, 5 as explained. It is expressly understood that the platens or jaws on closing carry the bands along and force the same into the top and bottom of the bale at the nearest points, so that the bale can be properly tied by the bands.

10 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A baling-press provided with platens formed with transverse grooves for the reception of 15 the bands and of a width and depth corresponding to the width and thickness of said bands, and recesses between pairs of grooves considerably deeper than the same, bars having their inner faces slightly rounded and

formed with longitudinal grooves to allow air 20 to escape from the top and bottom of the bale in compressing, the bars being fitted to slide in said recesses and having their inner ends chamfered and their outer ends provided with guide-rods, brackets along the side edges of 25 the platens and receiving said guide-rods to slide therein, and springs encircling said rods and forcing said bars normally out of recesses in which they are fitted and beyond the faces of the platens, the said bars reced- 30 ing into their recesses which are of such a depth that the bars will be flush with the faces of the platens when the bale is compressed, as and for the purpose set forth.

JOHN L. DUVAL.

Witnesses:

B. WALLACE,
G. A. HENRY.