

No. 830,875.

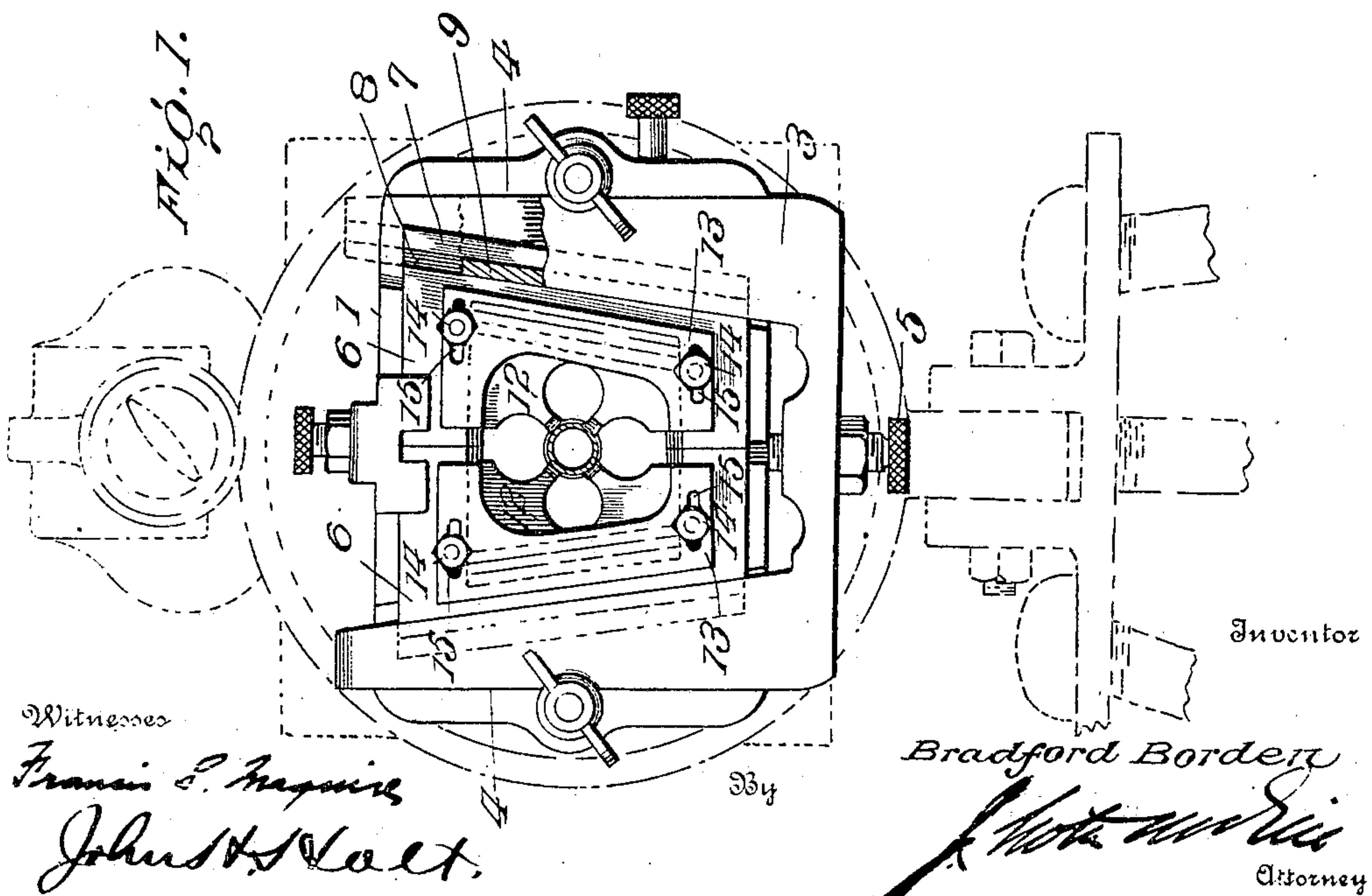
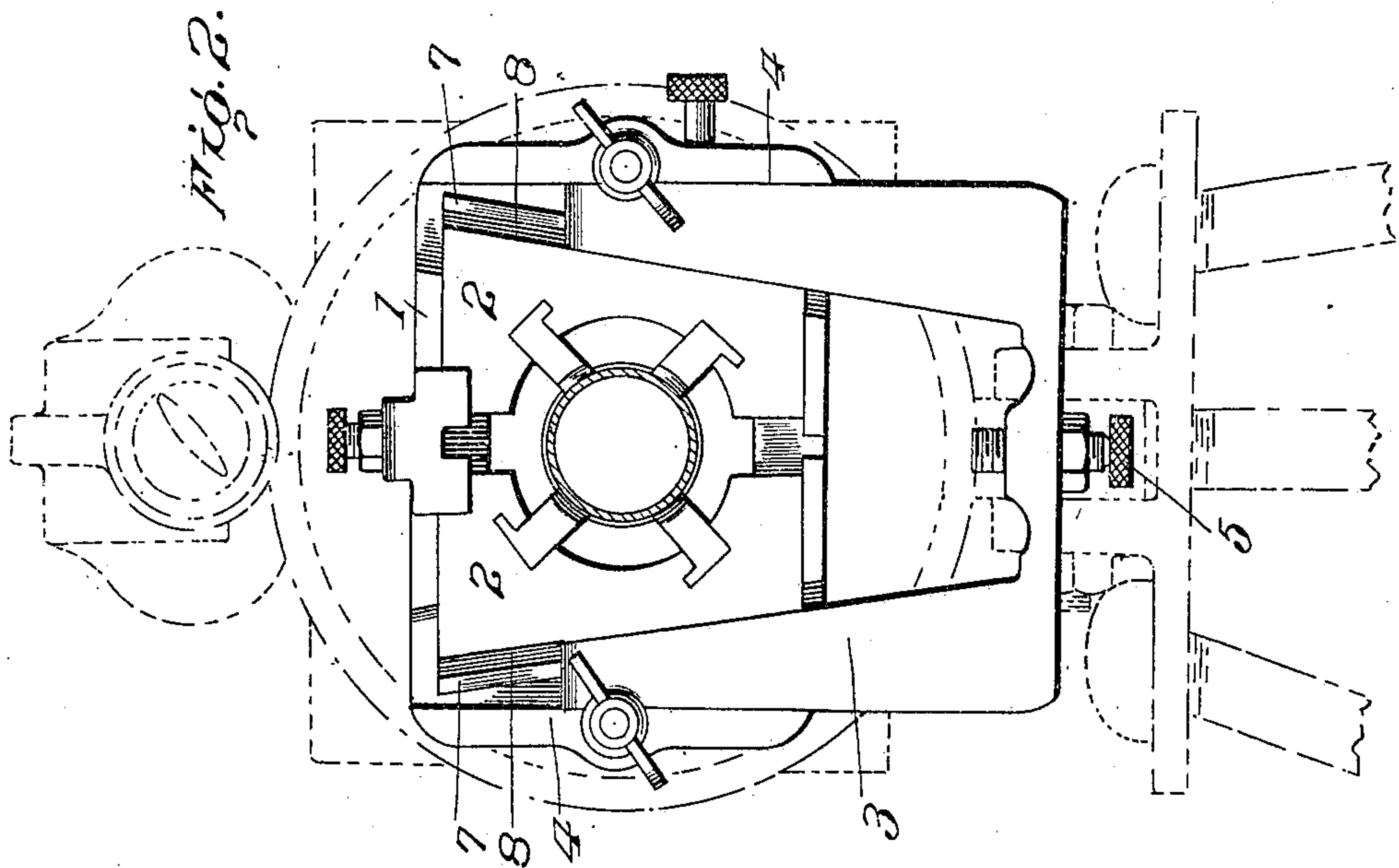
PATENTED SEPT. 11, 1906.

B. BORDEN.

ADJUSTABLE DIE STOCK.

APPLICATION FILED JULY 18, 1905.

2 SHEETS—SHEET 1.



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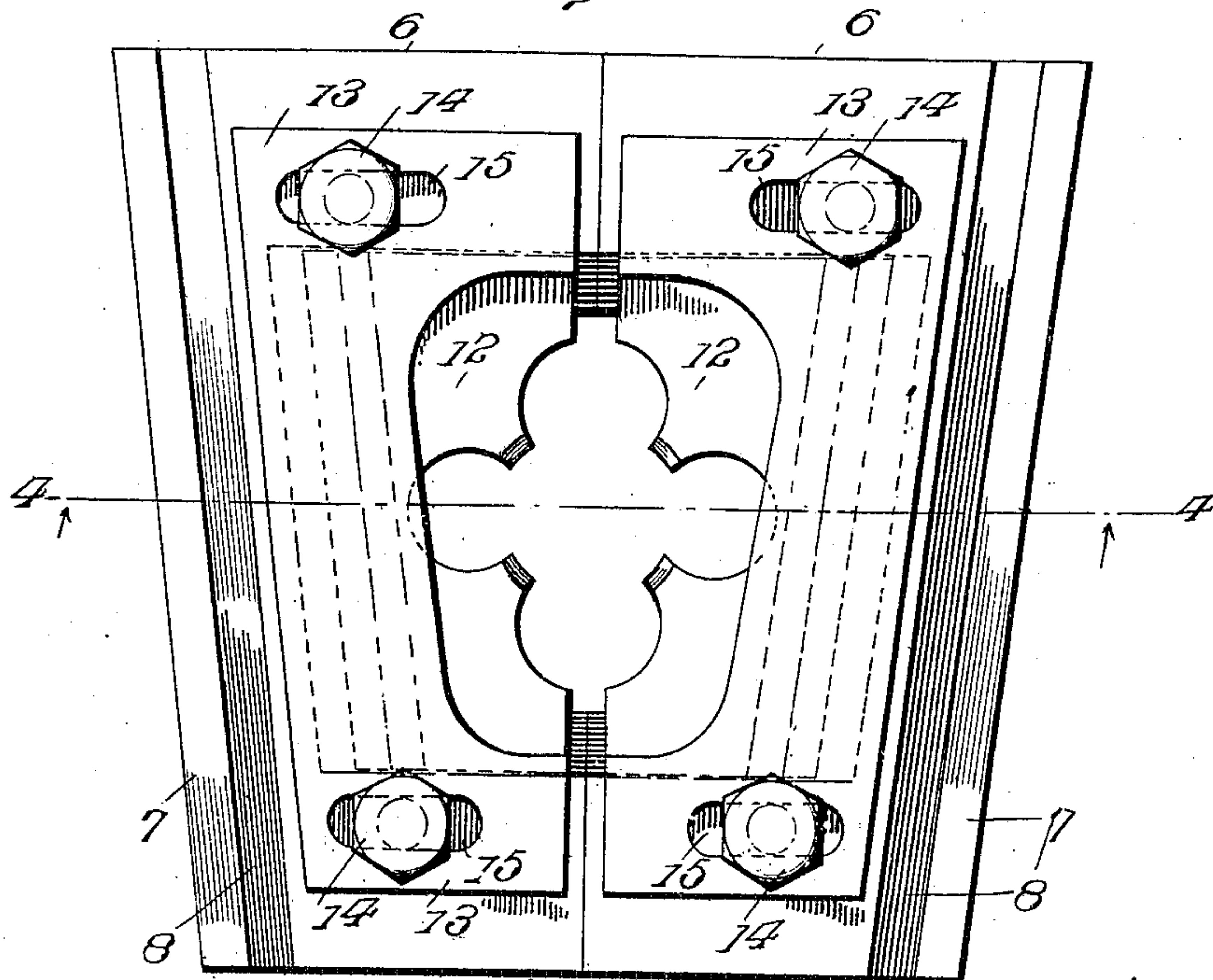
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2 SHEETS—SHEET 2.

Fig. 3.



Pró. 4.

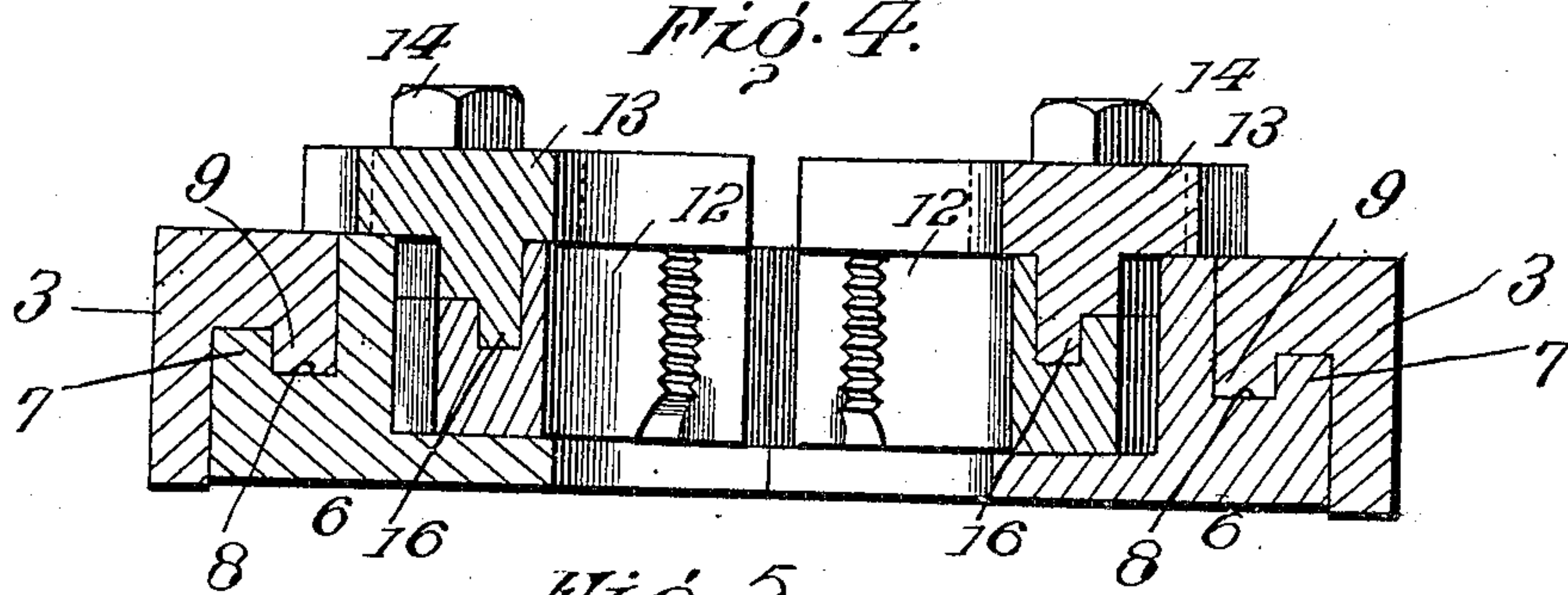
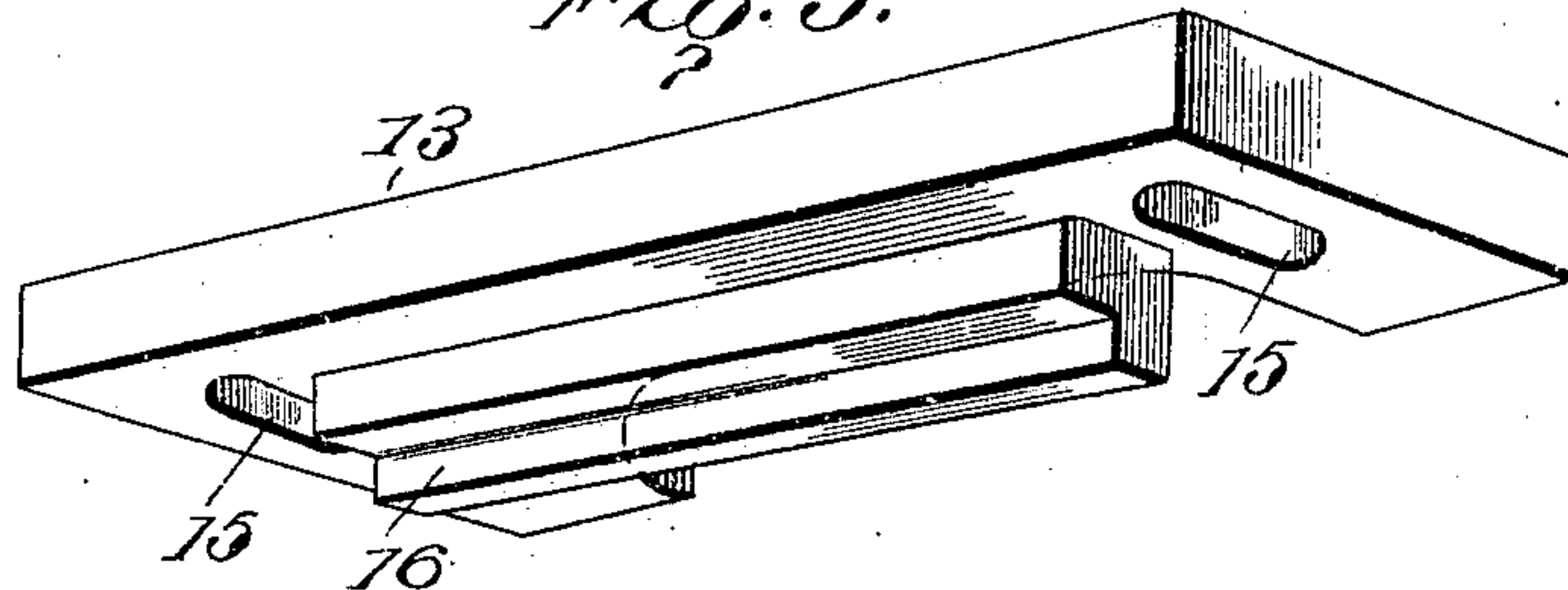


Fig. 5.



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Witnesses

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254

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# UNITED STATES PATENT OFFICE.

BRADFORD BORDEN, OF WARREN, OHIO, ASSIGNOR TO THE BORDEN COMPANY, OF WARREN, OHIO, A CORPORATION OF OHIO.

## ADJUSTABLE DIE-STOCK.

No. 830,875.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed July 18, 1905. Serial No. 270,189.

*To all whom it may concern:*

Be it known that I, BRADFORD BORDEN, of Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Adjustable Die-Stocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my present invention is to increase the range of operation of adjustable die-stocks for power-actuated or other pipe-threading machines, so as to enable pipes or bolts of various sizes to be threaded without the necessity of substituting different die-houses and adjusters for the sectional dies.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view showing a die-stock equipped with my improvements. Fig. 2 is a similar view showing the same die-stock in connection with die-blocks of maximum size. Fig. 3 is a view of the die-block carriers removed. Fig. 4 is a sectional view on line 4 4, Fig. 3, showing the adjuster in place. Fig. 5 is a view of one of the retaining-plates.

Referring to the drawings, 1 designates the housing; 2, Fig. 2, the sectional die-blocks of maximum size, and 3 the wedge-like adjuster of the type embraced by Letters Patent No. 744,465, issued to me November 17, 1903, such adjuster having side members straight on their outer edges to fit against straight end walls 4 of the die-housing and inclined on their inner edges to fit corresponding inclined faces of the sectional die-blocks, with which latter the side members interlock, so that by moving the adjuster inwardly and outwardly the die-blocks will be caused to move toward and away from each other, the proper adjustment being secured by set-screw 5, all as pointed out in said patent.

According to my present improvement the side members of the adjuster instead of engaging directly with the die-blocks engage with die-block carriers 6, which in general outline present the appearance of die-blocks of maximum size. In other words, the die-block carriers have inclined walls 7 and grooves 8 formed in reduced portions, such grooves being engaged by tongues 9 of the

side members of the adjuster, with the result that the die-block carriers will be moved by the adjuster exactly like the large size die-blocks. Each of the carriers is formed with an open-front chamber wherein fit the die-blocks 12, Fig. 1, such die-blocks being of small sizes. These small die-blocks are retained within their carriers by plates 13, secured to the front faces of the carriers by bolts 14 passed through slots 15 of the plates and working in threaded holes of the former. These plates have on their inner faces tongues 16, which engage with the ordinary grooves in the front faces of the die-blocks, thereby retaining the latter just exactly as if they were engaged by the side members of the adjuster, permitting them to be adjusted toward and away from each other by the sliding of the retaining-plates transversely of the die-carriers, the slots 15 permitting the plates to be so adjusted. Hence I am enabled to provide for a wide range of operation. The retaining-plates are of such width as to conceal the grooved portions of the die-blocks, and their ends extend sufficiently over the upper and lower edges of the die-blocks to insure the retention of the latter as against outward deflection and without interfering with the work of the chasers or thread-cutters.

The advantages of my present invention will be apparent. It is manifest that with one housing and one adjuster the same machine may be employed for threading pipes of various sizes, it being possible to use both large and small die-blocks in connection with the same housing and adjuster.

I claim as my invention—

1. The combination with the die-housing, the adjuster movable therein, and the sectional die-blocks, of the carriers for the latter engaged by said adjuster, said carriers having open-front chambers, and means for interlocking with said die-blocks and retaining them in said carriers.

2. The combination with the die-housing, the adjuster movable therein, and the sectional die-blocks, of the carriers for the latter engaged by said adjuster, said carriers having open-front chambers to accommodate said die-blocks, and plates detachably secured to said carriers and having means for interlocking with said die-blocks.

3. The combination with the die-housing, the adjuster movable therein, and the sec-



5 tional die-blocks having grooves in their front faces, of the die-block carriers with which said adjuster is designed to engage, said carriers having open-front chambers to accommodate said die-blocks, and plates detachably secured to said carriers having inwardly-extended tongues fitting the grooves of said die-blocks.

10 4. The combination with the housing, the adjuster movable therein, and the sectional die-blocks, of the carriers for the latter engaged by said adjuster, said carriers having open-front chambers to accommodate said

die-blocks, plates interlocking with said die-blocks and having slots therein, and threaded 15 bolts working in said carriers and extending through said slots to permit the die-blocks to be adjusted within their carriers.

In testimony whereof I have signed this specification in the presence of two subscrib- 20 ing witnesses.

BRADFORD BORDEN.

Witnesses:

FRANK S. CHRYST,  
MARY E. TREAT.