A. H. GAESS.

ADJUSTABLE DIE HOLDER FOR THREAD ROLLERS.

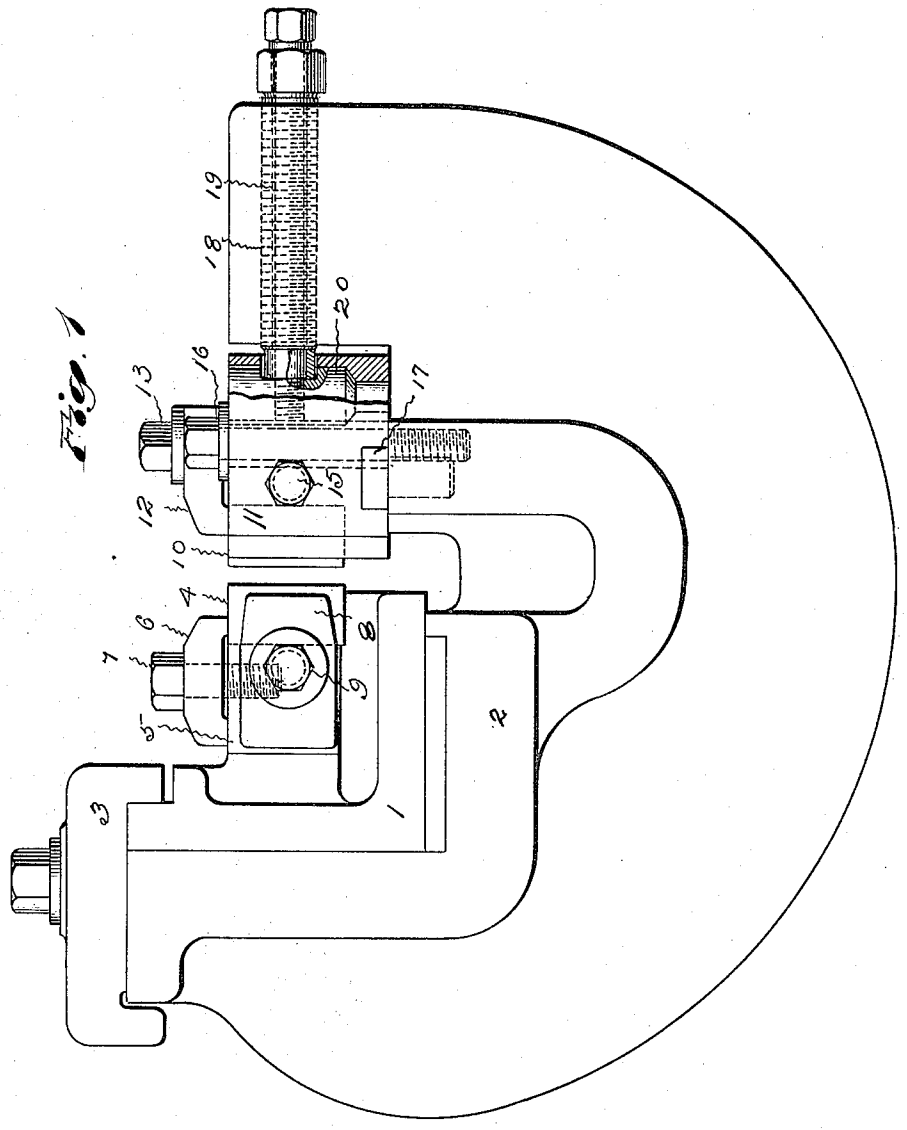
APPLICATION FILED SEPT. 22, 1914.

1,146,560.

Patented July 13, 1915.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses.
Sidney S. Grotta.
Myrtle E. Fallow

Inventor:
Albert H. Gaess by
Harry R. Williams
Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

A. H. GAESS.

ADJUSTABLE DIE HOLDER FOR THREAD ROLLERS.

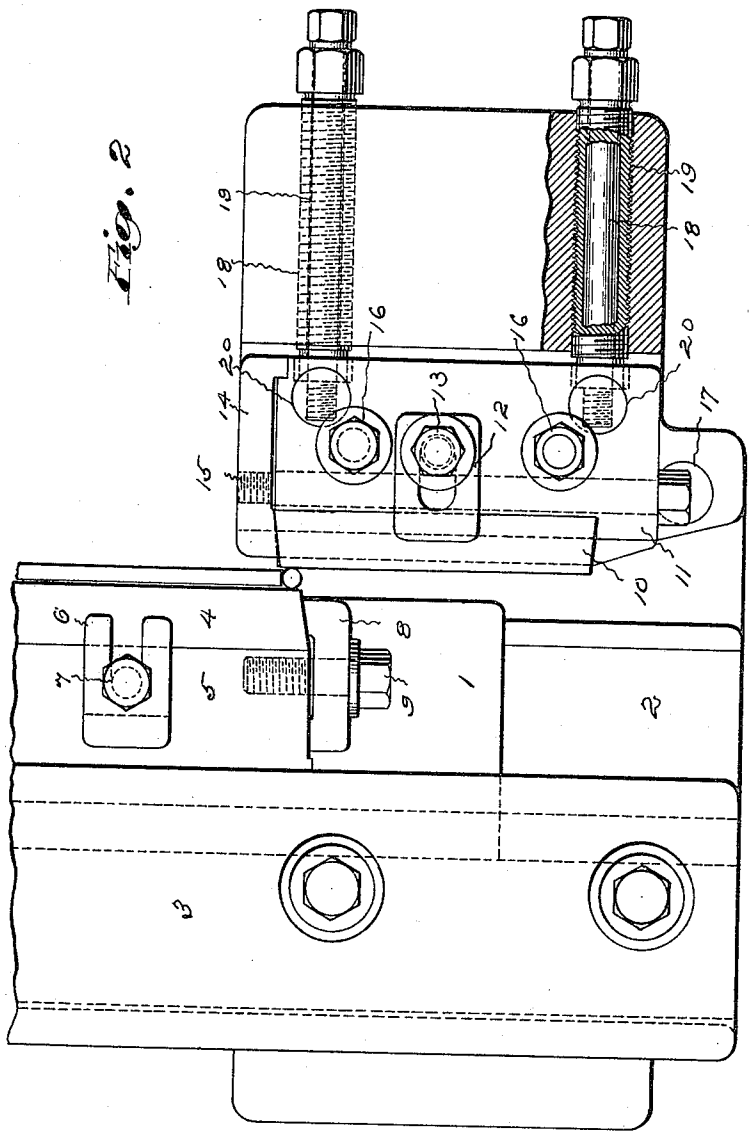
APPLICATION FILED SEPT. 22, 1914.

1,146,560.

Patented July 13, 1915.

2 SHEETS—SHEET 2.

Fig. 2



Witnesses
Sidney S. Grotta
Myrtle C. Fallow

Inventor:
Albert H. Gaess
by Harry R. Williams
Atty.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT H. GAESS, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE E. J. MANVILLE MACHINE COMPANY, OF WATERBURY, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ADJUSTABLE DIE-HOLDER FOR THREAD-ROLLERS.

1,146,560. Specification of Letters Patent. Patented July 13, 1915.

Application filed September 22, 1914. Serial No. 862,926.

To all whom it may concern:

Be it known that I, ALBERT H. GAESS, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Adjustable Die-Holders for Thread-Rollers, of which the following is a specification.

This invention relates to the means provided for adjusting the stationary die in a machine for rolling screw threads upon blanks. It is necessary to adjust the stationary die toward and from the movable die to accommodate blanks of different diameters. Sometimes this adjustment must be made so as to carry the rolling face of the stationary die parallel with the rolling face of the movable die, and sometimes it is necessary to incline the face of the stationary die with relation to the face of the movable die. Often the adjustment to accomplish the desired result is very slight. For adjusting the die it has previously been the custom to push the die holding block in by thrust screws, or pull it out by draw screws, the former bearing against the back of the die holding block, and the latter being threaded into the die holding block. With this arrangement when it is necessary to tilt the stationary die the thrust screws do not bear flatly against the face of the die holder and the ends of the draw screws are more or less bent depending upon the amount of inclination given to the face of the stationary die. This, of course, is unsatisfactory because it renders the backing less solid and tends to bind the parts and also break or damage the draw screws.

The object of the invention is the production of a very simple means by which the block that holds the stationary die will be firmly backed and can be accurately adjusted so that the face of the stationary die will bear the necessary relation to the face of the movable die to insure satisfactory results when the blanks are rolled between them.

Referring to the accompanying drawings, Figure 1 shows an elevation of a portion of the front end of a thread roller with the stationary die arranged to be adjusted by means which embody this invention. Fig. 2 shows a plan of the parts illustrated in Fig. 1.

The ram 1 is moved back and forth as usual on the frame 2 by any of the common mechanisms, being held in place by cap 3, which is bolted to the top of one side of the frame. The moving die 4 is held to the block 5 on the ram by the top clamp 6 and screw 7, and by end clamp 8 and screw 9.

The stationary die 10 is secured to the die holder 11 by the top clamp 12 and screw 13, and the end clamp 14 and screw 15. The die holder is held in place by the screws 16, which pass down through it into the frame and by the stop or thrust post 17.

The die holder is moved in and out for adjusting the rolling face of the stationary die by means of the thrust screws 18 and draw screws 19. The thrust screws are tubular and pass through threaded openings in the side of the frame, and their ends bear against flattened surfaces on the sides of the cylinders 20, which are loosely set in vertical sockets in the die holder. The draw screws pass freely through the thrust screws and have their inner ends threaded into the cylinders, which form pivots for the ends of the screws.

When it is desired to adjust the stationary die the die holder screws are loosened and the holder either moved in by turning in the thrust screws, or drawn out by turning out the draw screws. If it is necessary to tilt the stationary die the pivoting cylinders turn in the holder, preserving the alinement of the draw screws and insuring a full bearing for the ends of the thrust screws. This eliminates any tendency for the ends of the draw screws to become bent, and insures a strong, firm backing for the holder, while providing for an easy and accurate adjustment.

The invention claimed is;—

1. The combination with the frame of a thread roller, of a die holder, thrust screws turning in the frame and adapted to move the die holder in one direction, draw screws turning in the frame and adapted to move the die holder in the opposite direction, and means pivotally connecting the ends of the draw screws with the die holder.

2. The combination with the frame of a thread roller, of a die holder, means for securing the die holder in position on the frame, thrust screws turning in the frame and adapted to move the die holder in one direction, draw screws turning in the frame and adapted to move the die holder in the

opposite direction, and means pivotally connecting the ends of the draw screws with the die holder.

3. The combination with the frame of a thread roller, of a die holder, means for securing the die holder in position on the frame, a die clamped to the die holder, thrust screws turning in the frame and adapted to move the die holder in one direction, draw screws turning in the frame and adapted to move the die holder in the opposite direction, and means pivotally connecting the ends of the draw screws with the die holder.

4. The combination with the frame of a thread roller, of a die holder, cylinders loosely mounted in the die holder, thrust screws turning in the frame and adapted to move the die holder in one direction, and draw screws turning in the frame and threaded into said cylinders for moving the die holder in the opposite direction.

5. The combination with the frame of a thread roller, of a die holder, cylinders loosely mounted in the die holder, thrust screws turning in the frame and bearing against said cylinders, and draw screws turning in the frame and having their ends threaded into said cylinders.

6. The combination with the frame of a thread roller, of a die holder, cylinders carried by the die holder, thrust screws turning in the frame and having their ends bearing against the cylinders, and draw screws extending through the thrust screws and having their ends threaded into the cylinders.

7. Means for adjusting the stationary die holder of a thread roller, consisting of cylinders adapted to be engaged with the die holder, tubular thrust screws adapted to bear against said cylinders, and draw screws extending through the thrust screws and having their ends threaded into the cylinders.

ALBERT H. GAESS.

Witnesses:
HOWARD C. POST,
NATHL. R. BRONSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."