No. 863,756. PATENTED AUG. 20, 1907.

F. W. REILLY.

STOCK AND DIE.

APPLICATION FILED MAR. 13, 1906.

2 SHEETS—SHEET 1.

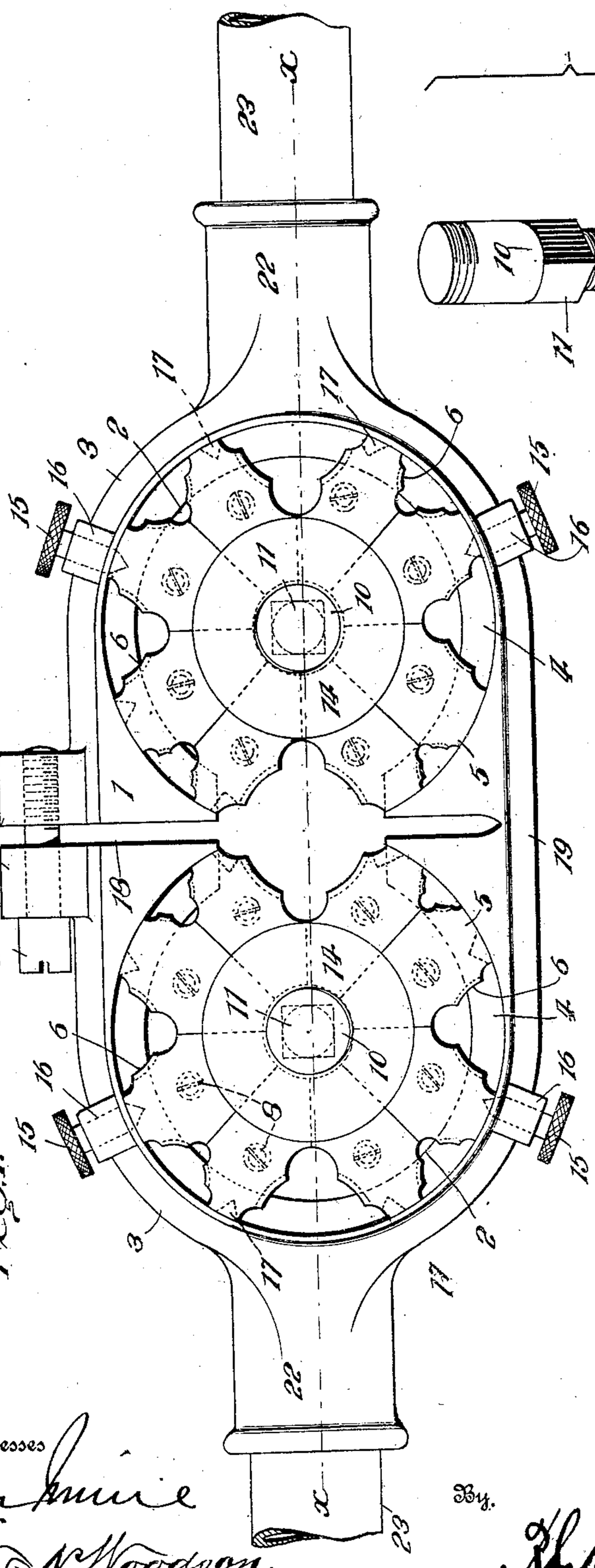

FIG. 1.

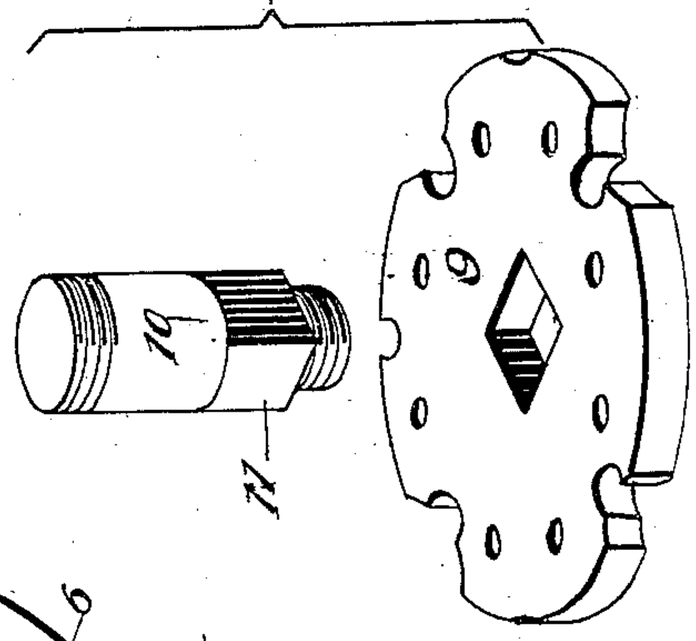

FIG. 4.

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2 SHEETS—SHEET 2.

FIG. 2.

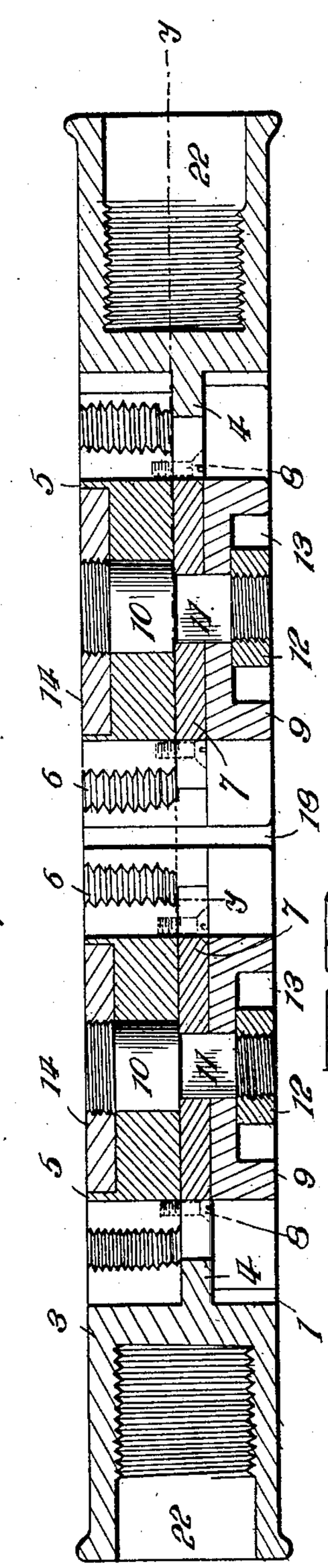
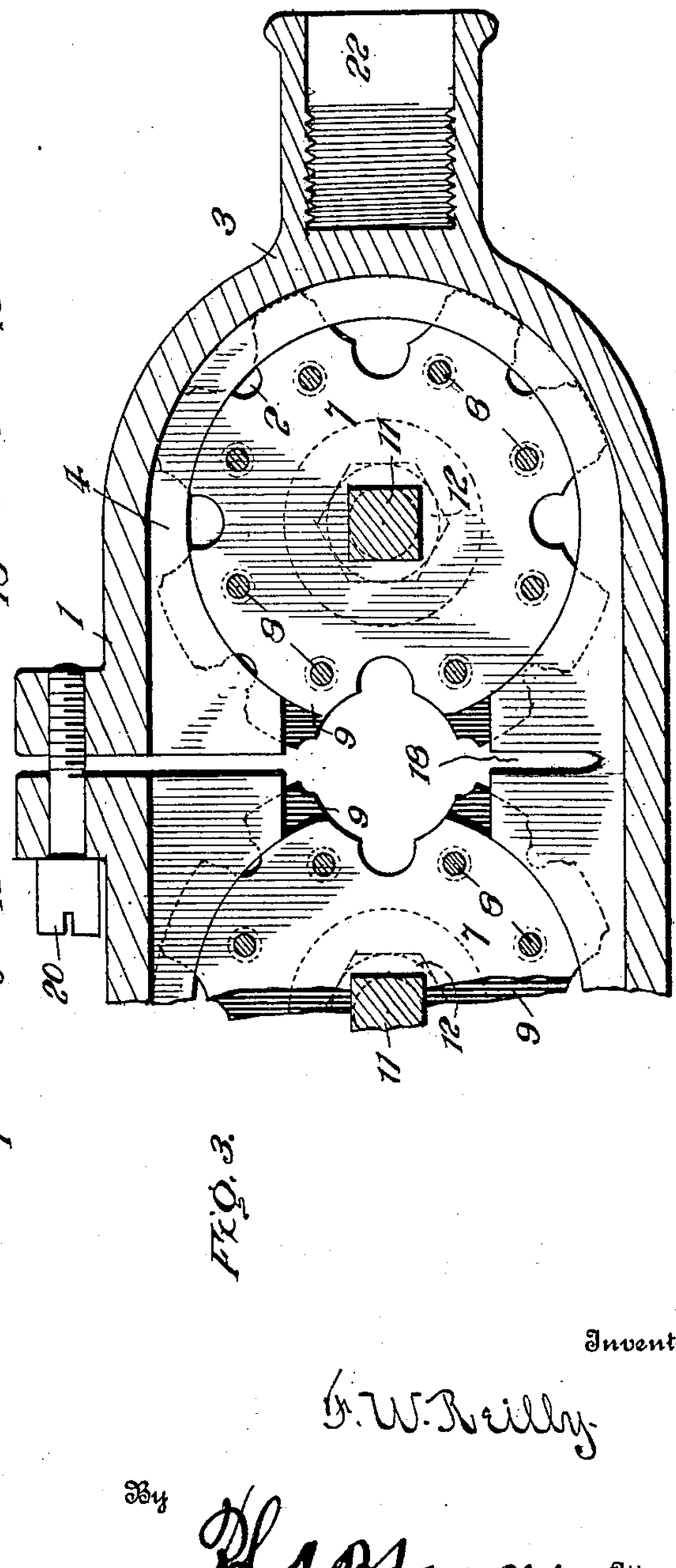


FIG. 3.



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UNITED STATES PATENT OFFICE.

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STOCK AND DIE.

No. 863,756. Specification of Letters Patent. Patented Aug. 20, 1907.

Application filed March 13, 1906. Serial No. 305,890.

To all whom it may concern:

Be it known that I, FRANCIS W. REILLY, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Stocks and Dies, of which the following is a specification.

This invention relates to improvements in stocks of that character which are provided with a series of corresponding dies, any pair of which can be turned into coöperation with each other according to the character of the work being performed.

The object of the invention is to provide a tool of this character which can be manufactured at a comparatively small cost, and in which the various parts are interchangeable so that the cost of repairs will be very small.

To this end the invention consists essentially of a stock having a pair of circular disks mounted upon opposite ends thereof, the said disks being provided with a series of dies in their peripheries, and being peculiarly mounted so as to enable any pair of the dies to be turned into operative position and securely locked against displacement.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a top plan view of the device; Fig. 2 is a vertical longitudinal sectional view through the same; Fig. 3 is a horizontal sectional view on the line *x*—*x* of Fig. 2; and, Fig. 4 is a detail perspective view of the die plate and bolt.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The numeral 1 designates the stock which is shown as approximately elliptical in shape and which is provided with two circular openings 2, the said openings communicating with each other at the central portion of the stock where an opening is formed through which the article being threaded is passed. Each of the openings 2 is partially surrounded by a rim 3, and a flange 4 projects inwardly from the rim 3 so as to form a seat for the disk 5 provided with the thread cutting dies. Each of the disks 5 has its periphery formed with a series of dies 6 which are adapted to be employed under various conditions, and which can be turned into cooperation with each other as desired. These disks 5 rest upon the die plates 7 and are secured thereto by means of screws 8 or other suitable fastening means. A guide member 9 bears against the under face of the flange 4 and is connected to the disk 5 by means of a bolt 10. The portion of the bolt 10 passing through the die plate 8 and the guide member 9 is reduced in cross section and given an angular or square formation as seen at 11, and has its extremity threaded so as to coöperate with a nut 12 which fits within a depression 13 in the lower face of the guide member 9. The portion of the bolt 10 passing through the disk 5 also has its extremiy threaded so as to coöperate with a circular washer or nut 14 whichrrests within a corresponding depression in the outer face of the disk. It will thus be seen that by loosening the bolt 10, the disks 5 can be turned within the openings 2 so as to bring any desired pair of dies 6 into coöperation with each other.

In order to lock the disks 5 in a fixed position, set screws 15 are employed which pass through enlarged portions 16 in the rim 3 and engage with the peripheries of the disks. Two of these set screws 15 are preferably located at each end of the stock and it will be observed that the extremities of the set screws are pointed and are adapted to engage with corresponding depressions 17 in the disks.

The stock 1 is provided at its central portion with a transverse break 18 which divides the stock into two sections connected by the neck 19. This neck 19 forms a spring connection which enables the two sections to be brought closer together or forced apart as required. For this purpose an adjusting screw 20 is employed which passes through corresponding projections 21 upon the opposite sections of the stock. At opposite ends of the stock 1 are located the sockets 22 by means of which the handles 23 are fastened in position.

In the location of the dies 6 upon the disks 5, it will be observed that the smaller dies are placed between the larger dies and in this manner a much stronger construction is obtained than if the larger dies were placed in succession.

Having thus described the invention, what is claimed as new is:

1. The combination of a die stock provided with a pair of intersecting and approximately circular openings, each opening being partially surrounded by a rim, an inwardly projecting flange carried by each rim, a disk bearing against one side of the flange in each opening, the said disks being provided in their periphery with a series of dies, a circular guide member bearing against the opposite side of the flange in each opening, a circular die plate interposed between each disk and the corresponding guide member and mounted to rotate within the flange, and a bolt connecting each disk and the corresponding plate and guide member, the said disks being adapted to be turned so as to throw any pair of dies into coöperation with each other.

2. The combination of a die stock provided with a pair of intersecting and approximately circular openings, each opening being partially surrounded by a rim, an inwardly projecting flange carried by each rim, a disk bearing against one side of the flange in each opening, the said disks being provided in their periphery with a series of dies, a circular guide member bearing against the opposite

side of the flange in each opening, a circular die plate interposed between each disk and the corresponding guide member and mounted to rotate within the flange, and a bolt connecting each disk to the corresponding die plate and guide member, the portion of the bolt passing through the die plate and guide member having an angular formation and being capped by a nut, while the opposite end of the bolt is threaded and capped by a washer fitting within a depression in the disk, the said disks being designed to be turned so as to throw any pair of dies into coöperation with each other.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS W. REILLY. [L. S.]

Witnesses:
JOHN J. CAVANAGH,
PETER A. FARLEY.