

D. DREIER.

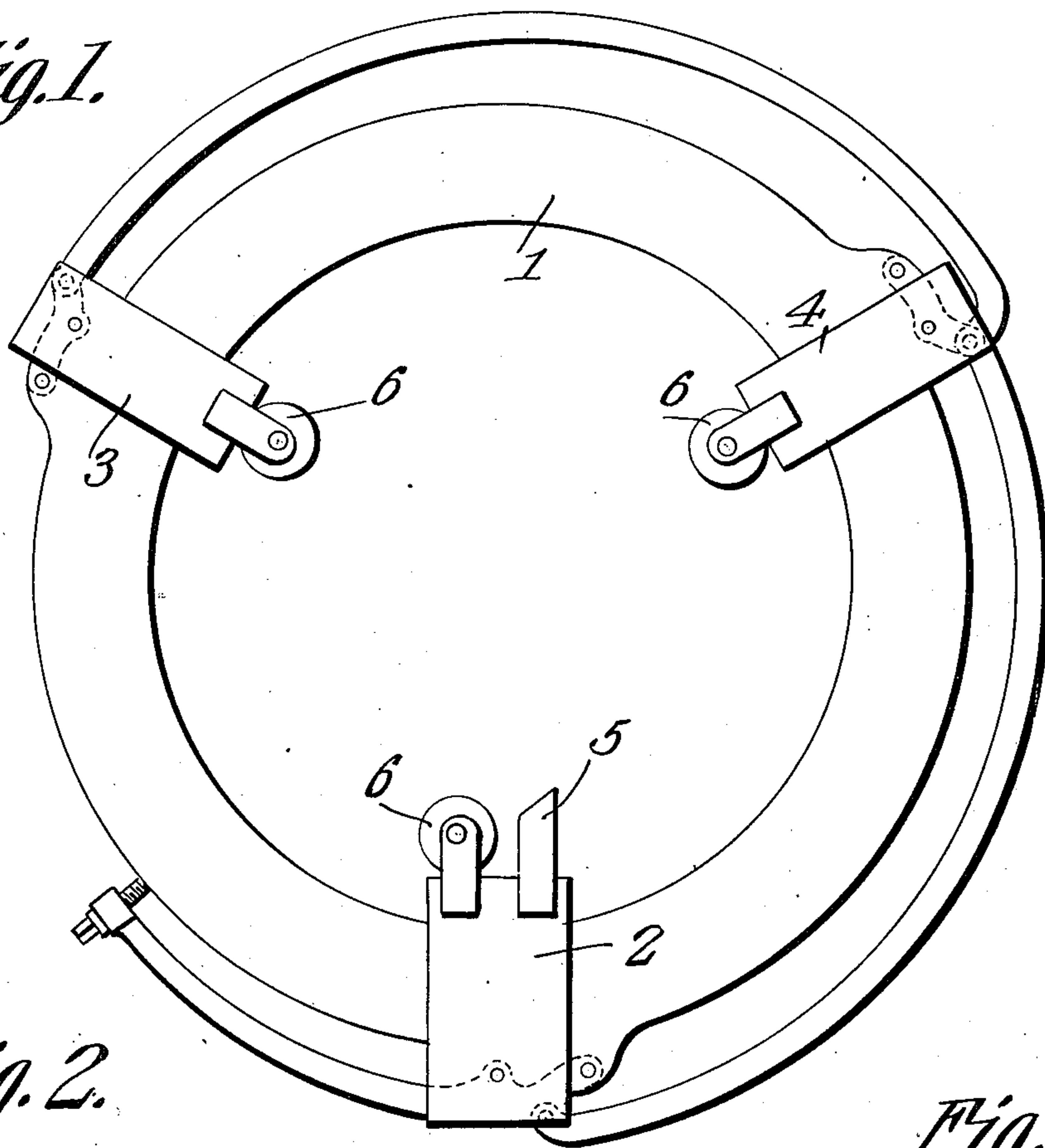
THREAD FORMING APPARATUS.

APPLICATION FILED SEPT. 17, 1907. RENEWED JULY 13, 1910.

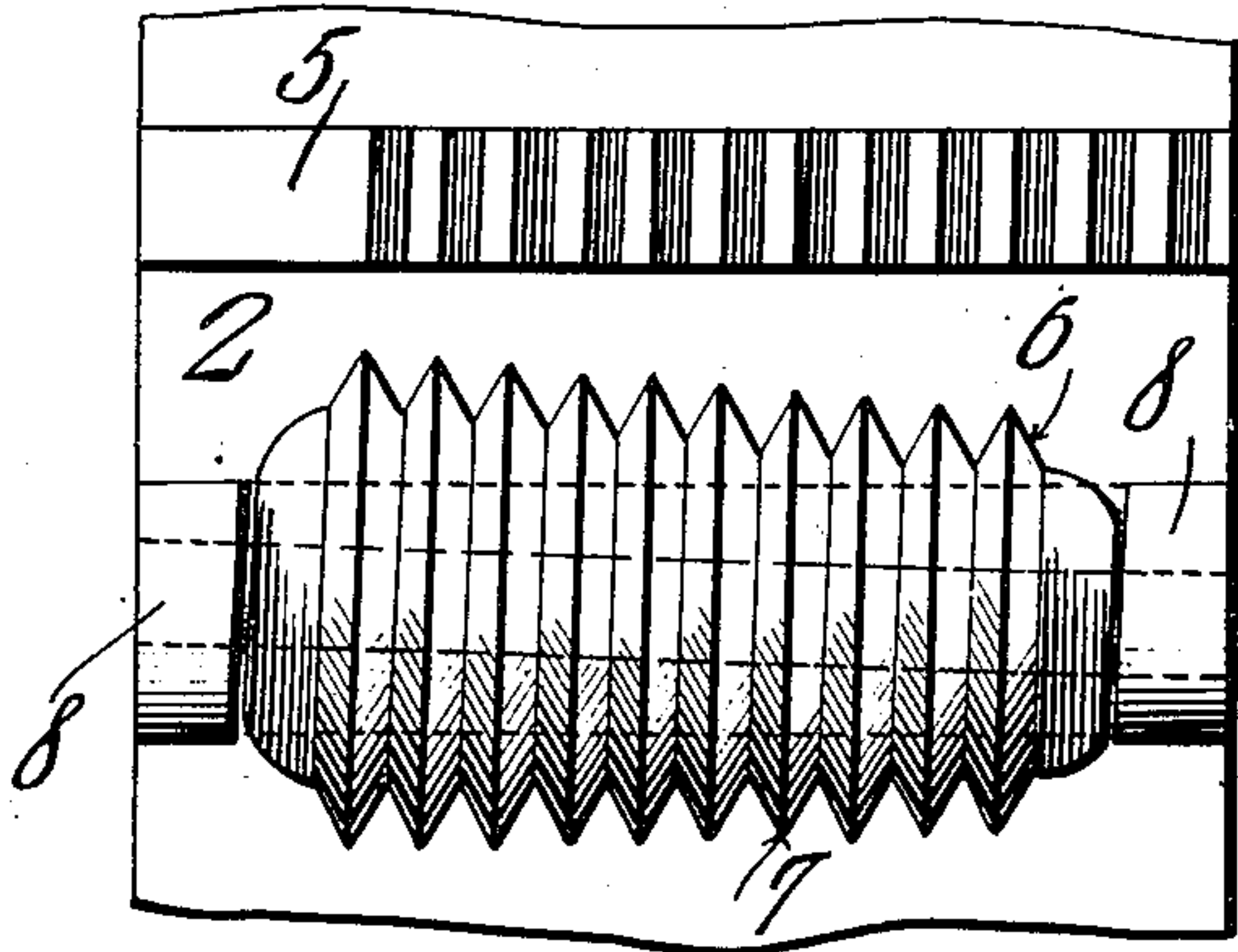
981,624.

Patented Jan. 17, 1911.

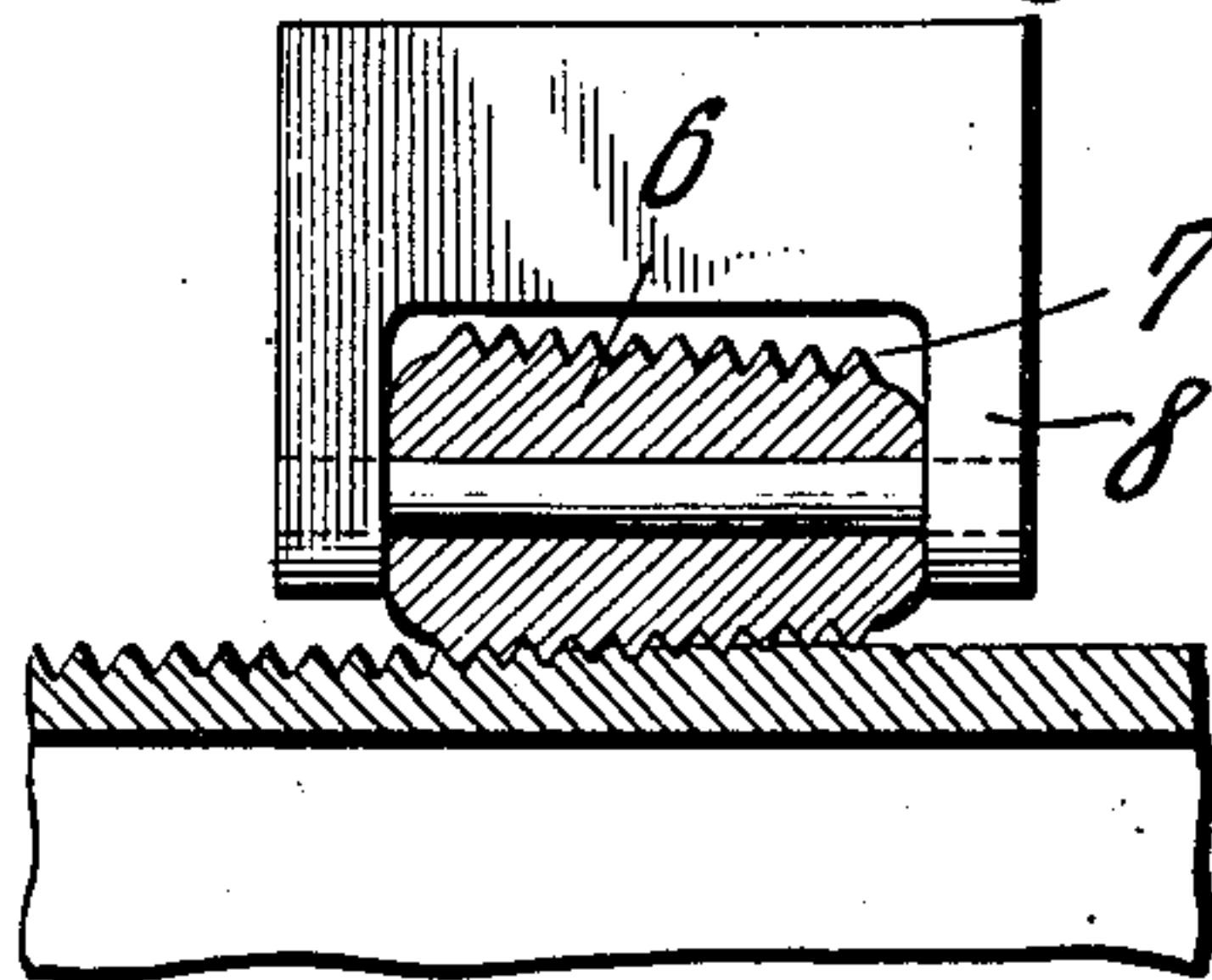
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

DOMINICK DREIER, OF LIVINGSTON, MONTANA.

## THREAD-FORMING APPARATUS.

981,624.

Specification of Letters Patent. Patented Jan. 17, 1911.

Application filed September 17, 1907, Serial No. 393,350. Renewed July 13, 1910. Serial No. 571,845.

*To all whom it may concern:*

Be it known that I, DOMINICK DREIER, a citizen of the United States, residing at Livingston, in the county of Park and State of Montana, have invented a new and useful Thread-Forming Apparatus, of which the following is a specification.

This invention relates to thread-forming apparatus.

10 The object of the present invention is in a rapid, economical and positive manner, and without removal of metal from the stock, to effect formation of threads on an object, the metal forming the valleys of the threads being compressed whereby the stock is rendered more rigid in character.

With the above and other objects in view as will appear as the nature of the invention is better understood, the same consists, 20 generally stated, in forming threads upon stock without removing any appreciable portion thereof, whereby the weakening that results in threading tubular stock is largely obviated.

25 The invention consists further in certain novel features of construction and combination of parts of a threading device as will be hereinafter fully described and claimed.

30 In the accompanying drawings forming a part of this specification and in which like characters of reference indicate corresponding parts, Figure 1 is a face view displaying the manner in which the forming members are disposed when in operation. Fig. 2 is 35 an enlarged detail view showing the disposition of the cutter and of the chaser employed in connection therewith. Fig. 3 is a detail view showing the manner in which the threads are formed upon the stock, and 40 also the appearance of the stock at the conclusion of the threading operation.

Referring to the drawings, 1 designates a die holder, which may be either the chuck of a threading machine or the holder of an ordinary hand die stock. Carried by this 45 member are three die carriers 2, 3 and 4 which are of the usual construction.

50 The carrier 2 is shown as equipped with an ordinary chaser or chasing die 5 and with one of the threaders 6 which form the novelty of the present invention, while the carriers 3 and 4 are each provided only with a threader. As shown in Fig. 1, the chaser extends inwardly a short distance beyond the periphery of the threader, while, as shown in Fig. 2, the chaser projects longi-

tudinally some distance beyond the entering end of the threader. The threaders 6 are tapered or cone-shaped structures having peripheral ribs 7, which are disposed at 60 right angles to the long diameter of their carrying-shafts 8, the small tapered ends of the threader being disposed at the mouth or entering end of the die stock.

In threading a pipe or other article with 65 this threading device, the work is inserted and the chaser will first contact therewith and cut the initial threads, and as the work is moved forward or as the die stock is moved downward, as the case may be, the 70 smallest of the ribs of the threaders will enter the first thread, and operate progressively to draw the work through the chuck or die stock and thereupon sink into the metal and form the thread, it being understood 75 that the axes of the threaders are pitched at an angle of about one-half degree to the axis of the work, as shown in Fig. 2.

Owing to the tapered form of the threader 6 it will be obvious that at the conclusion of 80 the threading operation there will be left some unfinished threads, as shown in Fig. 3, that is to say, threads that are not the same depth as those at the entering end of the stock. This is of advantage, inasmuch as by 85 having the stock slightly tapered at the point where the threads cease, connection between the stock and coupling will be of a more stable character.

While but three of the threaders 6 are 90 herein shown it will be obvious that if desired a greater number may be employed and as this will be readily appreciated detailed illustration thereof is omitted.

What is claimed is:— 95

A thread cutting implement embodying a plurality of tapered threading members having ribs disposed at right angles to their long diameters, and their axes pitched at a slight angle to the axis of the work, and a 100 chaser arranged adjacent to one of the threaders and being disposed slightly in advance of the same, whereby to make an initial thread.

In testimony that I claim the foregoing 105 as my own, I have hereto affixed my signature in the presence of two witnesses.

DOMINICK DREIER.

Witnesses:

E. M. NILES,  
ELBERT F. ALLEN.