

No. 741,317.

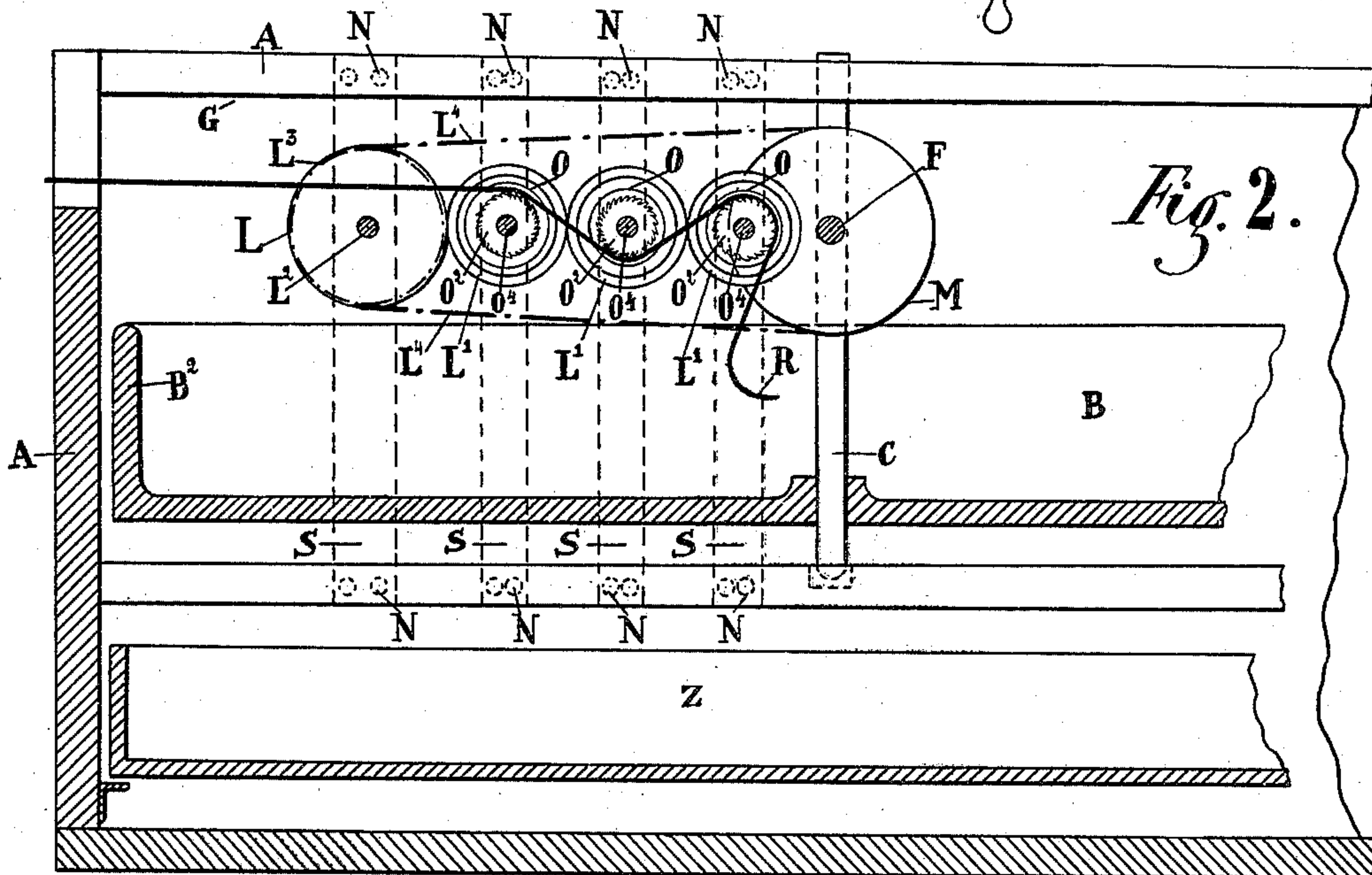
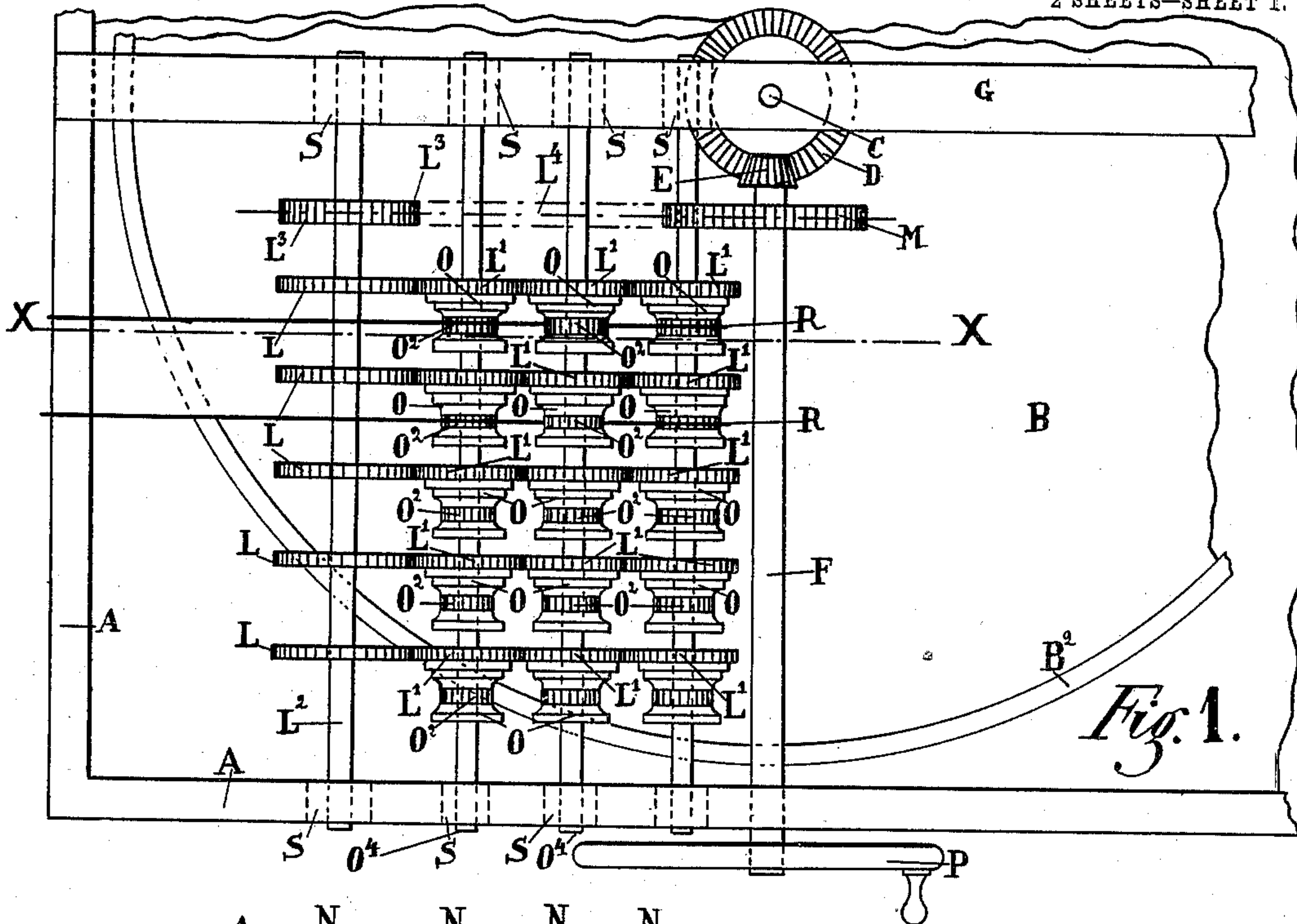
PATENTED OCT. 13, 1903.

A. R. DURANTE.  
AUTOMATIC PEARL THREADING MACHINE.

APPLICATION FILED MAR. 25, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

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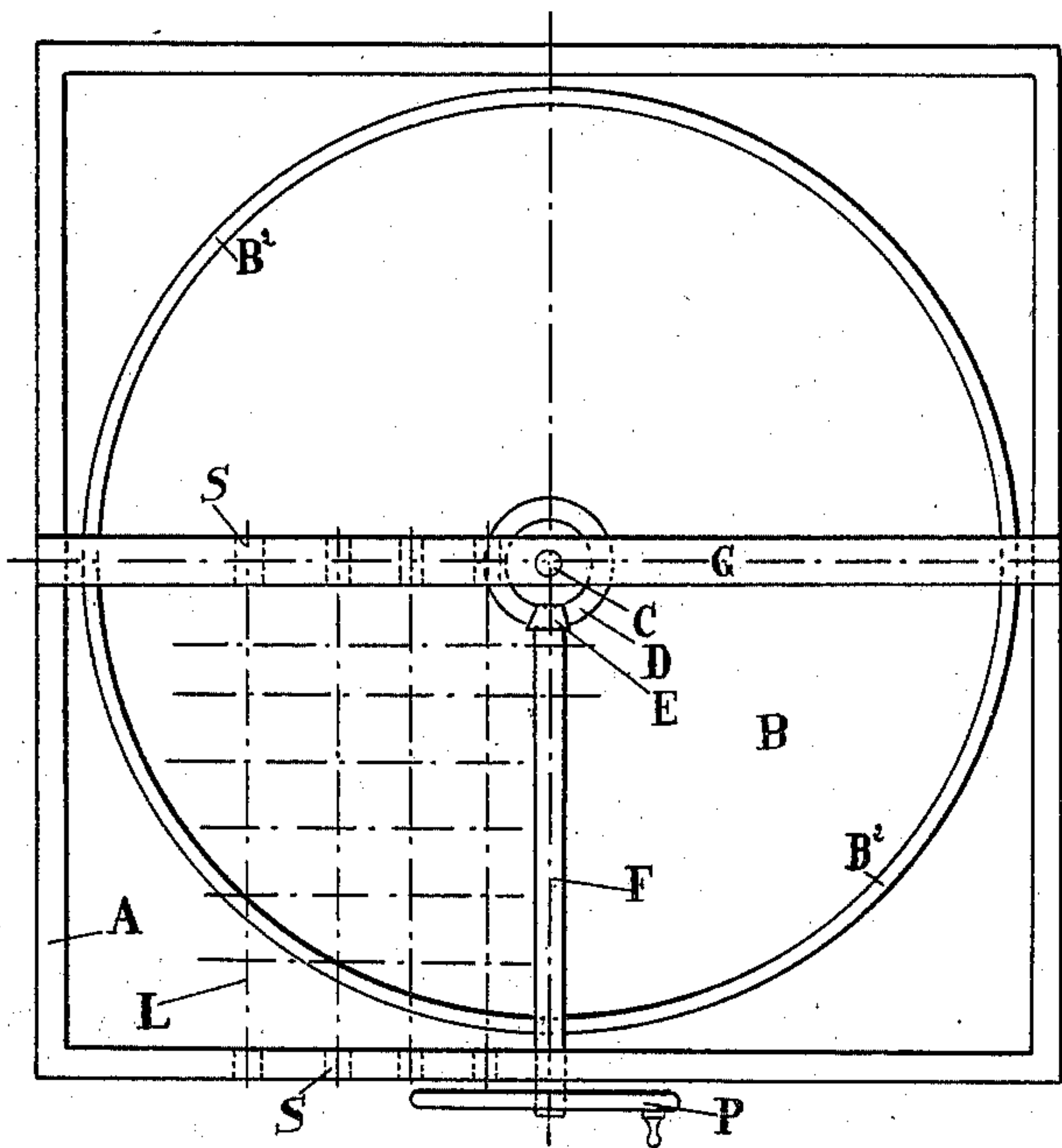
# AUTOMATIC PEARL THREADING MACHINE.

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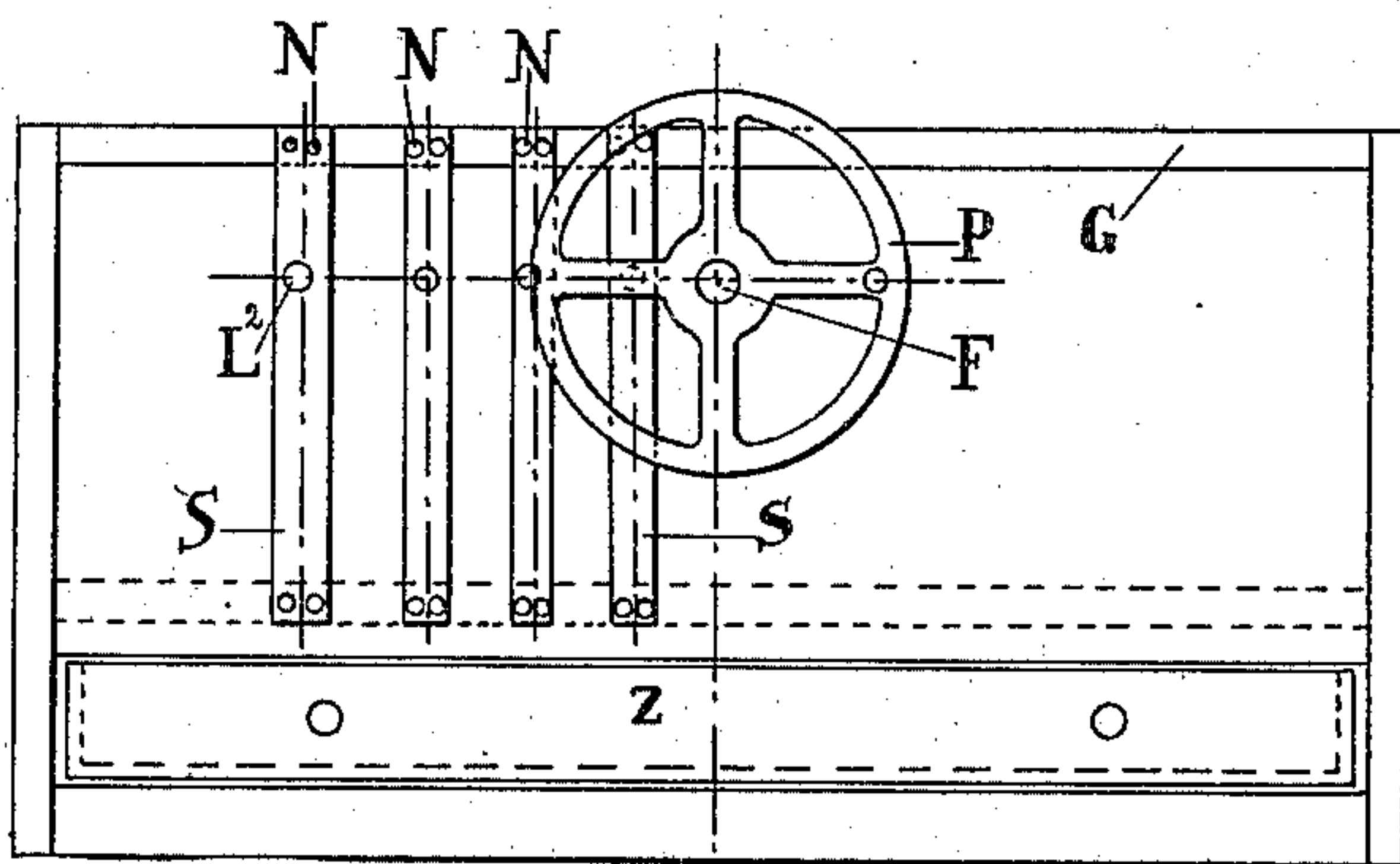
NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 3.*



*Fig. 4.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

AIMÉ REGIS DURANTE, OF MARSEILLES, FRANCE.

## AUTOMATIC PEARL-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 741,317, dated October 13, 1903.

Application filed March 25, 1901. Serial No. 52,772. (No model.)

*To all whom it may concern:*

Be it known that I, AIMÉ REGIS DURANTE, a citizen of the Republic of France, residing at Marseilles, France, have invented certain  
5 new and useful Improvements in Machines for Threading Pearls, Beads, and Similar Articles, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the  
10 same.

In machines of this class as usually constructed the pearl-threads are wound on guides at different levels around the same spool or otherwise guided in a complicated  
15 way; but in order to simplify the work to the greatest possible extent and to make it more easy and simple the pearl-threads in my invention are guided on the same level in toothed channels and never quite around the  
20 axles.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated  
25 by suitable reference characters in each of the views, and in which—

Figure 1 is a plan view of a part of my machine; Fig. 2, a cross-section on the line X X of Fig. 1; Fig. 3, a diagrammatic plan view  
30 of the machine; and Fig. 4, a similar view of one side thereof, Figs. 3 and 4 being on a reduced scale.

In the practice of my invention I provide a suitable casing or frame A, preferably made  
35 of wood, and in which is mounted a rotatable table B, having a flange or rim B<sup>2</sup> and forming a receptacle for pearls. The table B is provided with a central vertical axle C, having a beveled gear-wheel D, and the table B  
40 is revolved by means of a shaft F, provided with a beveled pinion or gear E, which operates in connection with the gear-wheel D, and said shaft is provided with a hand-wheel P or other suitable device, by which it is  
45 turned. The casing A is also provided with a transverse member G, in which the shaft C is supported, and any suitable support or supports may be provided for the shaft F. I also employ driving-gears L, mounted on a shaft  
50 L<sup>2</sup>, supported in the casing or frame A, and the shafts F and L<sup>2</sup> are geared in connection

by means of a wheel M on the shaft F and a wheel L<sup>3</sup> on the shaft L<sup>2</sup> and a belt L<sup>4</sup> or other suitable device mounted on said wheels. I also provide wood spools O, which are mount-  
55 ed on parallel shafts or spindles O<sup>4</sup>, which are mounted in a horizontal plane, and said spools are provided with gear-wheels L', rigidly connected therewith and also in connection with the wheels L on the shaft L<sup>2</sup>, and the spools  
60 are turned by the shaft L<sup>2</sup>, and the spindles O<sup>4</sup> are mounted in supports S in the sides of the casing or frame A. It will be seen that the spools O are arranged in series in trans-  
65 verse line and in a horizontal plane, and each series is revolved by the corresponding wheel L on the shaft L<sup>2</sup>.

The flexible needles R are guided alternately around the spools O, which are provided with toothed channels or grooves O<sup>2</sup>,  
70 and said needles are unremovable during the operation of the machine.

The thread-spools are seated in a special frame and the needles slightly oiled, and the pearls or other articles to be threaded are  
75 placed in the receptacle formed by the table B and the rim thereof, and the shaft F is turned from left to right with a uniform but not very speedy movement, and in this operation the pearls slide onto the threads with  
80 which the needles are provided, and in this operation it is necessary to keep two or three yards of thread in order to be able to change the thread without stopping the machine.

In the construction shown in the drawings  
85 there are three of the spool-spindles employed, and these spindles are arranged in the same horizontal plane, and the spools of the middle spindle are turned in a direction opposite to that in which the spools of the other two  
90 spindles are turned, and the movement of the spools on said spindle is always in the same direction with reference to the needles R, and said needles pass under the spools on the  
95 central spindle and over the spools on the other two spindles.

The parts N, as shown in the drawings, are simply bolts or other fastening devices for holding the supports S, which carry the shaft  
100 L<sup>2</sup> and the spool-spindles O<sup>4</sup>.

The machine shown has but one rotary table or receptacle B; but it may be constructed



with two or more adapted to be guided in succession in front of the needles in order to string the pearls therein.

5 The drawer Z is placed in the bottom of the casing or frame A and is designed to receive the pearls or other articles coming from the table or receptacle B.

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

15 A pearl-threading machine, comprising a casing, a revoluble receptacle mounted therein, means for revolving said receptacle, a shaft mounted transversely of said frame or casing over said receptacle, a plurality of spool-spindles mounted parallel with said shaft and in the same horizontal plane, a plu-

20 rality of spools mounted on said spindles and arranged in transverse series and geared in connection with each other, said spools being each provided with grooves in the perimeter thereof and a needle mounted on each of said series of spools and extending downwardly into said receptacles, the grooves in said spools being also provided with teeth or pro- 25 jections, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

AIMÉ REGIS DURANTE.

Witnesses:

G. E. GASTON GONELLE,  
GABRIEL RAVEL.