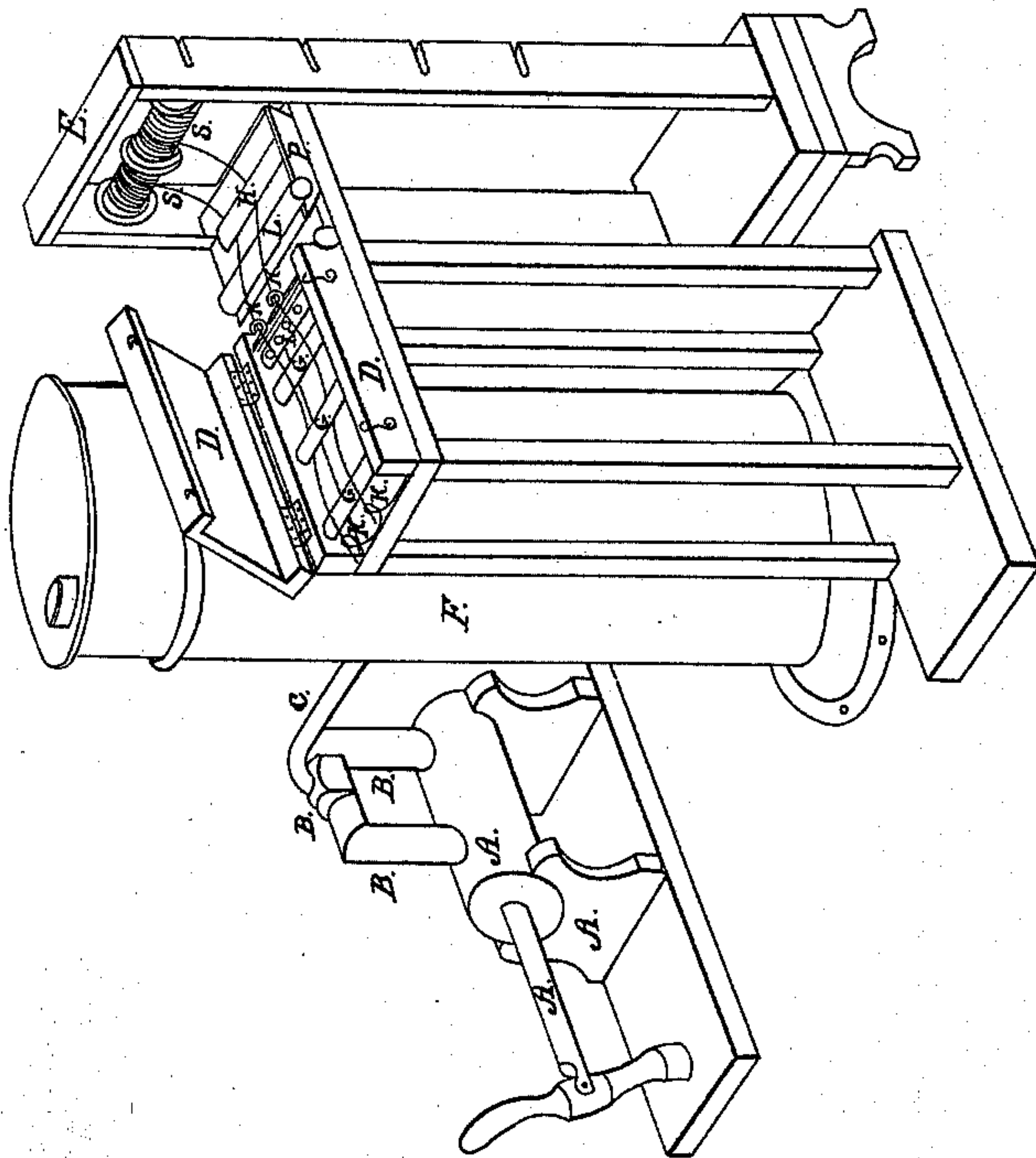


*J. Day.*  
*Yarn Dressing Mach.*

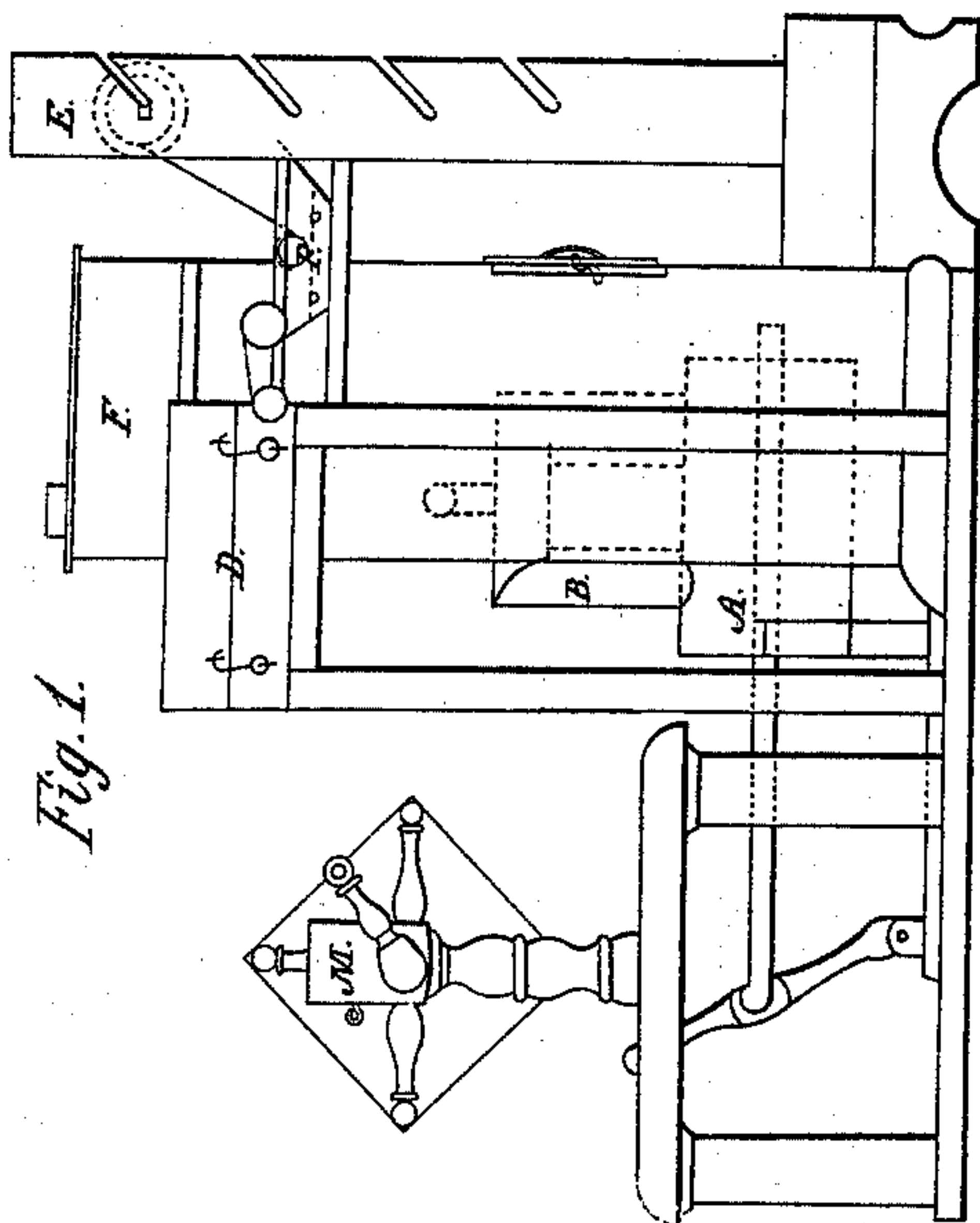
*N<sup>o</sup> 49,240.*

*Patented Aug. 8, 1865.*

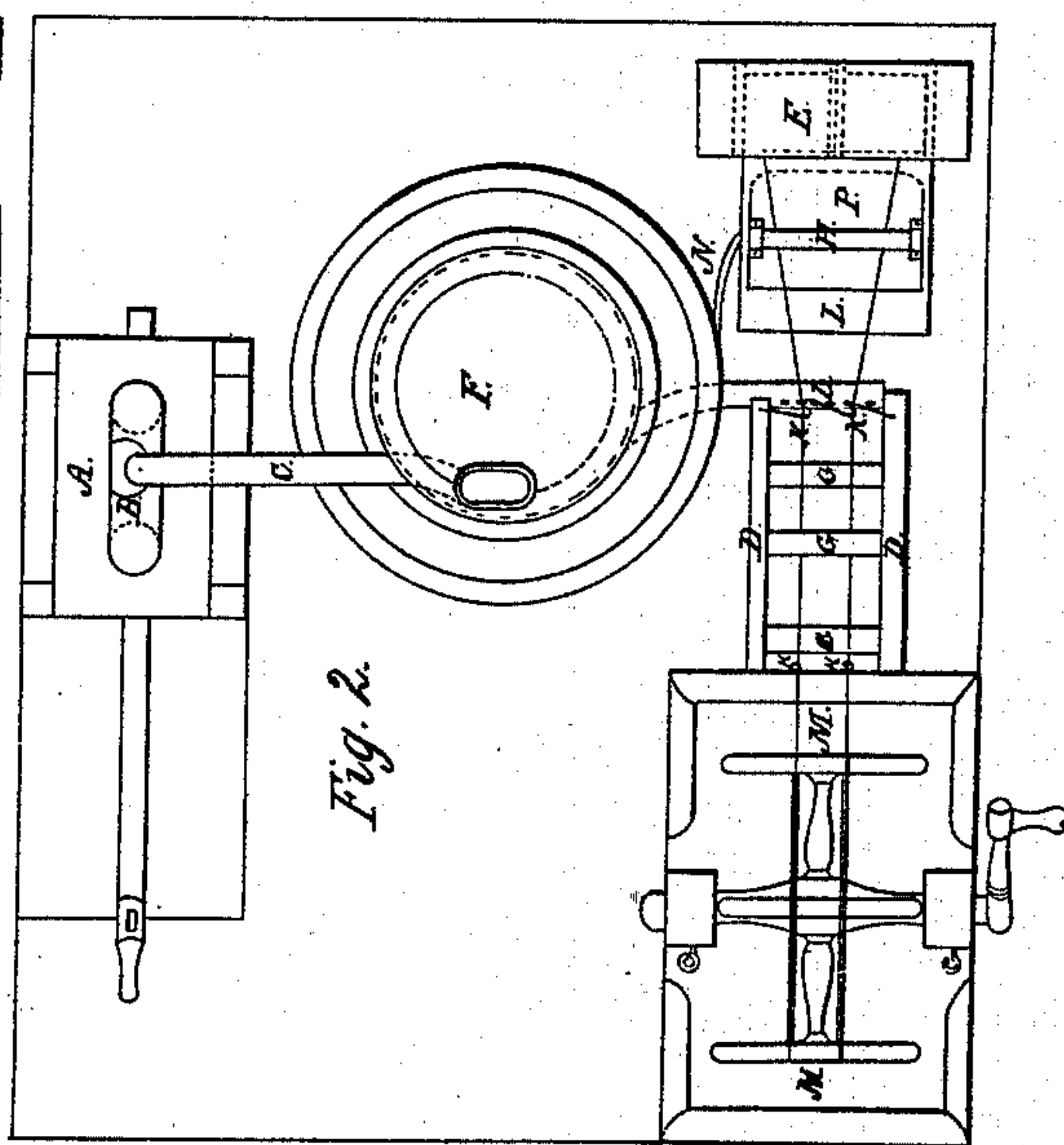
*Fig. 3.*



*Fig. 1.*



*Fig. 2.*



*Witnesses,*  
*J. Greenough*  
*John Thomas*

*Inventor,*  
*John Day*



# UNITED STATES PATENT OFFICE.

JOHN DAY, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN APPARATUS FOR DRESSING SILK THREAD, &c.

Specification forming part of Letters Patent No. 49,240, dated August 8, 1865.

*To all whom it may concern:*

Be it known that I, JOHN DAY, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Apparatus for Dressing, Finishing, and Imparting Luster to Threads of Spun Silk, &c.; and I do hereby declare and ascertain my said invention, referring to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a plan. Fig. 3 is a perspective view of the apparatus.

My invention is for the purpose of laying the fine fibers smoothly upon the thread of silk, &c., and giving the same a luster and polish, or even appearance. Heretofore it has been common to pass the rough threads through gum, and thence wipe them off by means of flannel or sponges; but there has been some trouble in drying the threads so treated and giving them the proper gloss. To effect the drying and finishing, resort has been had to heated plates, over which the threads, after gumming, have been passed to dry and polish them; but this I consider defective and liable to injure the material.

To obviate the defects of the modes heretofore in use, I have made my improvements, which prepare the threads properly and finish them perfectly without the possibility of injury, by which they are materially improved in quality and value.

In my improved method of treating threads they are first wound on spools suitably arranged on wires placed in a frame, E, similar to those used in the silk trade, and shown at s s in the drawings. The threads pass off from the spools S to the reservoir P of gum-solution or other suitable material already known and used for the purpose of finishing silks, &c. The threads are immersed in the liquid in the reservoir P by passing under a glass rod fixed therein. The reservoir has a double bottom, by means of which the solution contained there-

in may be readily heated by means of hot air conducted through a pipe, N, from the air-heater, to be hereinafter described. The threads then pass out of the solution over flannels or sponges, or other suitable materials used by finishers of silks, &c., and the threads are thence conveyed through proper guides, K, into and through an oblong box, D, where they pass over and under certain glass rods G G and out through other guides, K', to a reel, M, on which they are wound. In passing through the wooden box D they receive upon them a current of hot air, blown in jets through a series of holes in the tube L, located at one end of the box D. This tube L connects with a proper air-heater, which in the drawings is a coil of tubing located in an ordinary stove, F. The air should be forced into and through the heater by means of any convenient blowing apparatus, such as a pump, as seen in the drawings at A, or a fan-blower or bellows, all of which may be driven and the reel turned by any convenient power, or by hand.

In this description I do not wish to be understood as confining myself to the particular kind of air-heater or mode of making the blast, as they may be done in any convenient known way.

Having thus fully described my improved apparatus for dressing, finishing, and imparting luster to threads of silk and like material, what I claim therein as new, and for which I desire Letters Patent, is—

1. The combination of a gumming apparatus with a drying and finishing box, constructed and arranged substantially as and for the purposes set forth.

2. In combination with the above, the hot-air blast for drying the threads, as specified.

JOHN DAY.

Witnesses:

J. J. GREENOUGH,  
STEPHEN G. CLARKE.