

E. GESSNER.  
NAPPING MACHINE.

No. 64,859.

Patented May 21, 1867.

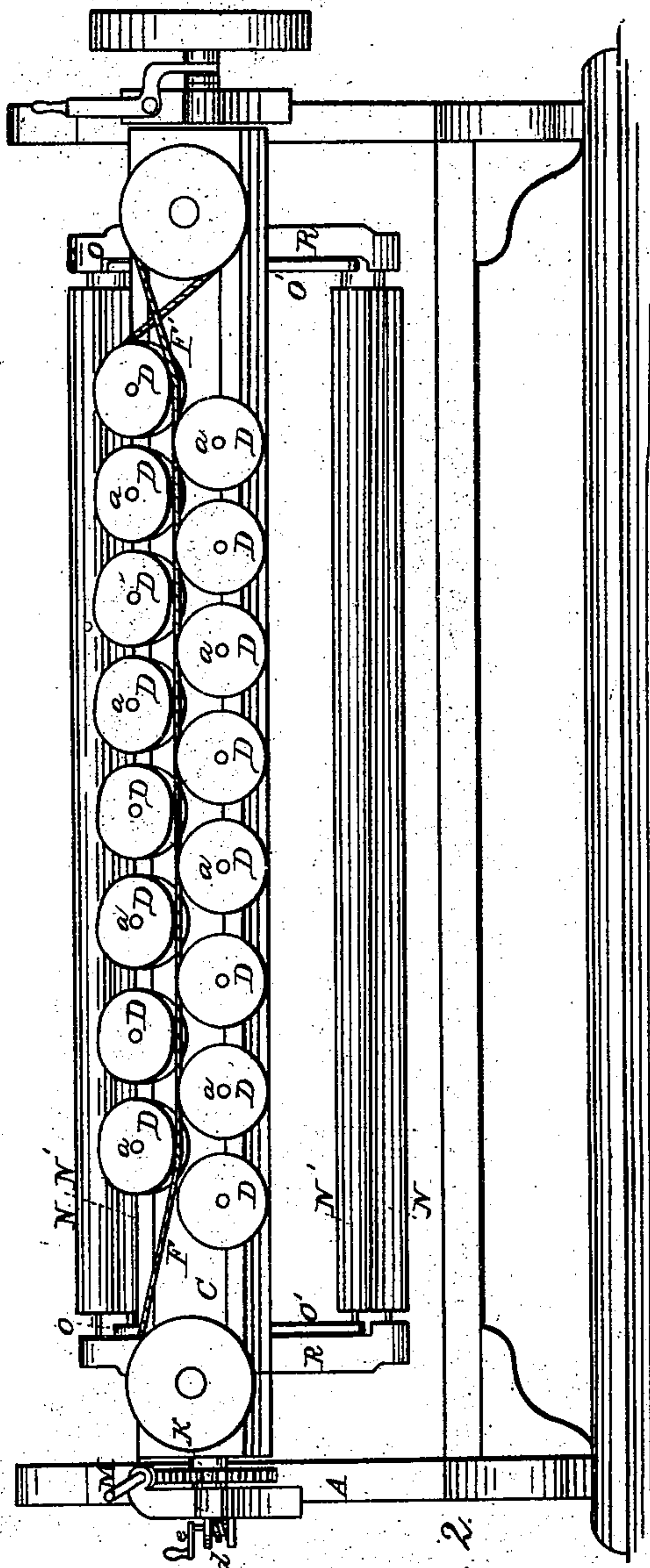


Fig. 2.

Witnesses

J. A. Jackson  
Wm. Frewin

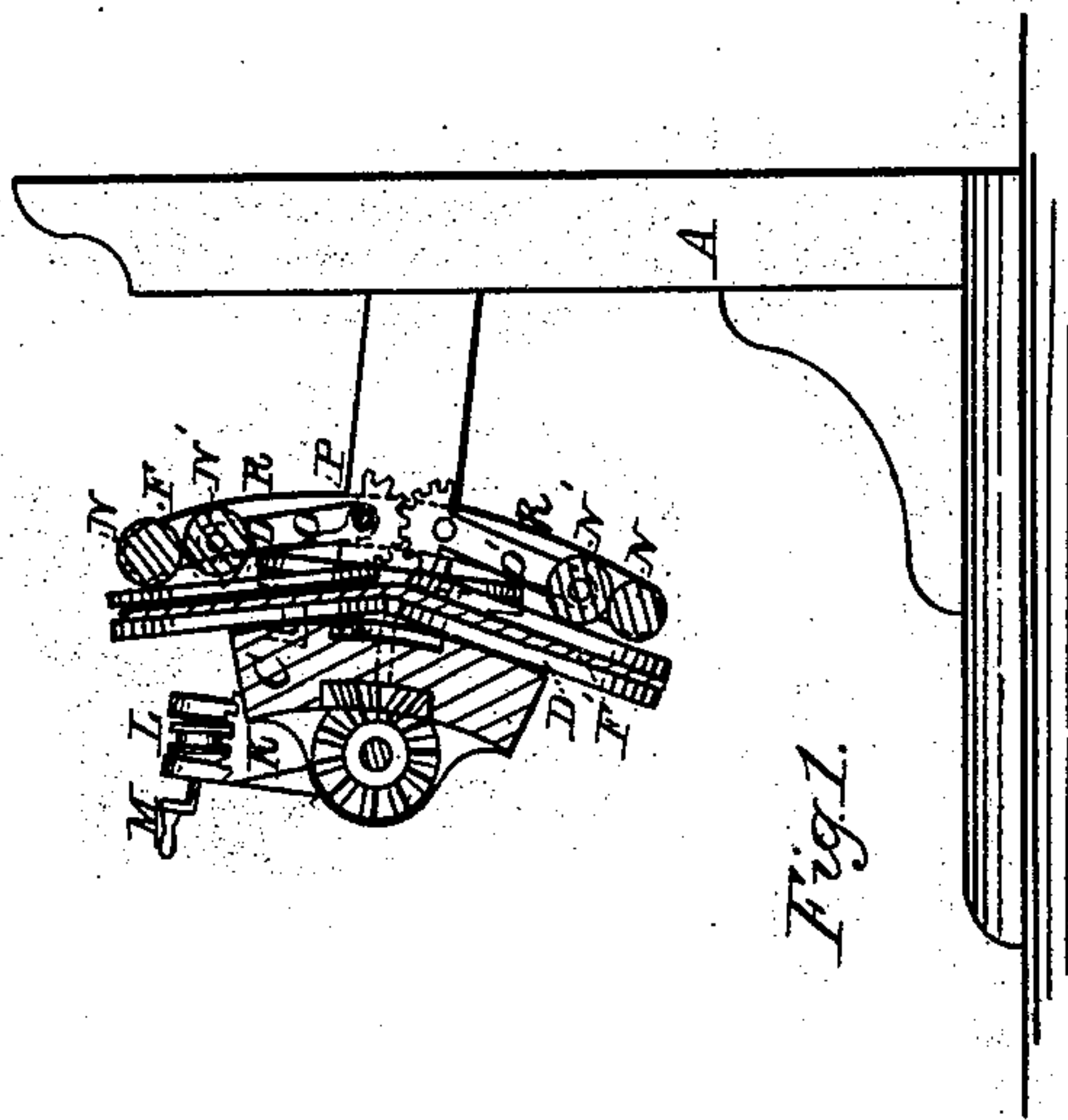


Fig. 1.

Inventor:

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# United States Patent Office.

ERNST GESSNER, OF AUE, SAXONY.

*Letters Patent No. 64,859, dated May 21, 1867.*

## IMPROVEMENT IN GIG-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ERNST GESSNER, of Aue, in the Kingdom of Saxony, have invented a new and improved Teasing Attachment to Gig-Mills; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a transverse vertical section of this invention.

Figure 2 is a front elevation of the same.

Similar letters of reference indicate like parts.

This invention relates to an attachment to gig-mills which is composed of a series of revolving disks, with cards or other suitable material, which act in conjunction with adjustable guide rollers in such a manner that by the revolving motion of the disks, and by their position in relation to each other, the fibre of the cloth is acted on throughout the whole width of said cloth, and under various angles; and, furthermore, the cards act uniformly and continuously on the surface of the cloth, thus raising the nap perfectly in a comparatively short time.

A represents the frame of an ordinary gig-mill, to which I secure, by suitable clamps or set-screws, a frame, C, which forms the bearings for the studs *a*, on which revolve the disks D. Two or more rows of disks may be used, and a revolving motion is imparted to said disks from a drum of the gig-mill by means of cords F F, which extend over suitable pulleys which are secured to the disks D, said cords being arranged in such a manner that each drives one half of the disks; but it must be remarked that the motion of the disks may be produced by any other suitable means besides those represented in the drawings. The frame C is hung on gudgeons, and to one of its ends is secured a worm-wheel or a segment of a worm-wheel, K, into which meshes an endless screw, L, mounted on a shaft to which a revolving motion can be imparted by a handle or crank, M. By turning this crank, the frame C can be brought up or removed from the cloth, which is necessary for the purpose of attaching the cords or changing or cleaning the same. It is obvious that this motion of the frame can be effected in various different ways. The cloth or fabric is conducted to the disks D by means of four rollers, N N'. The outer rollers N have their bearings in arms R, secured to the main frame A, but the rollers N' have their bearings in arms O O'. The arms O are mounted on a shaft, P, and they are provided with toothed segments on the arms O' so that by turning the shaft P the rollers N' are brought closer to or removed from the disks D. On the shaft P is mounted a toothed segment which gears in a worm, *d*, to which a revolving motion is imparted by a handle, *e*. By turning this handle the rollers N are moved towards or from the disks D, and the cloth or other fabric can be brought in the proper position towards said disks to produce the desired effect. By the worm-wheel and toothed segment, the rollers N are retained in the desired position, and the cloth or fabric being fed along between the rollers N N' and disks D, is acted on throughout its entire width by the cards on the disks, so that the nap of the warp threads and also of the weft threads is raised uniformly throughout.

What I claim as new, and desire to secure by Letters Patent, is—

1. The construction and arrangement of the revolving disks D in the adjustable frame C, substantially as described for the purpose specified.

2. The arms O O', with toothed segments, in combination with the rollers N' and disks D, constructed and operating substantially as and for the purpose set forth.

This specification signed by me this 28th day of April, 1866.

ERNST GESSNER.

Witnesses:

KARL FERDINAND GOTSCH,

FERDINAND WILHELM GNAETT.