E. Ale,

Desk,

No. 80,893, Patented Aug. 11, 1868.

Fig. 1.

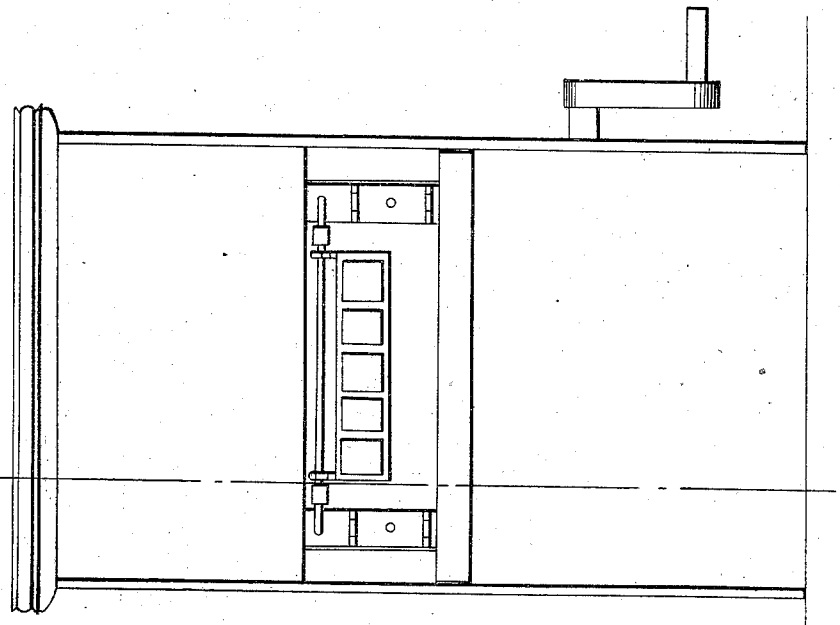
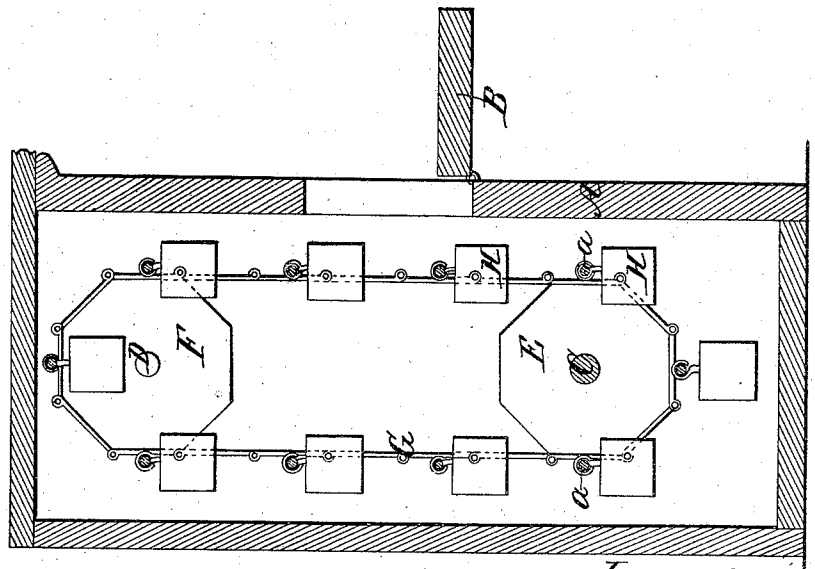


Fig. 2.



Witnesses;
Wm A Morgan
G. C. Cotton

Inventor;
E. Ale
per Munn & Co
Attorneys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

EZRA ALE, OF CLEARFIELD, PENNSYLVANIA.

Letters Patent No. 80,893, *dated August* 11, 1868.

IMPROVED SECRETARY.

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, EZRA ALE, of Clearfield, in the county of Clearfield, and State of Pennsylvania, have invented a new and useful Improvement in Secretaries; 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 drawings, forming part of this specification, in which—

Figure 1 represents a front view of my improved secretary.

Figure 2 represents a sectional elevation of the same, on the line *x–x* of fig. 1.

Similar letters of reference indicate like parts.

My invention relates to improvements in secretaries, the object of which is to economize space, and provide a more convenient article of the kind than any now in use.

It consists in providing, within a case, a series of small cases of drawers or pigeon-holes, suspended from rods, which are connected at both ends to endless belts, which are arranged upon pulleys at the top and bottom of the large case, the pulleys being actuated by a crank on the shaft of the lower set, which projects through the wall of the same, whereby the said interior cases may be moved away from or up to an opening provided in the outer case, as will be more fully described on reference to the accompanying drawings.

A represents the case of a secretary, provided with a door, B, which may be arranged to swing open and rest on brackets, so as to be maintained in the position shown in fig. 2, constituting a convenient table for writing or assorting papers.

Within the case A are arranged two horizontal shafts, C and D, provided with pulleys, E F, on each end, over which belts, G, are arranged to work, to which are suspended, at suitable distances apart, rods *a*, running from one belt to another. From these rods are suspended, by hooks or links, suitably formed to swing on the said rods, cases or shelves H, for containing books, papers, or anything which it is desired to file away therein. The said cases are made shorter than the spaces between the pulleys, in a horizontal direction, and by reason of being connected to the rods *a* by a swinging connection, they swing between the pulleys F at the top when the belts are going over the same, and always provide the same side up.

The belts may be made of metal, in sections, and the pulleys made with plane faces to correspond with the said links, or they may be made round, and leather, India-rubber, or any other kind of belting may be used.

The shaft C projects through the side of the secretary, and is provided with a crank for turning it.

A secretary constructed after this plan is very economical in space and convenient for use, as the contents of any part of it may be conveniently brought to hand, instead of climbing up or going around it to get at the contents on fixed shelves.

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

The combination, with a secretary or book-case, of the movable shelves or cases H, belts G, and pulleys E and F, substantially as and for the purpose described.

EZRA ALE.

Witnesses:

LATIMER R. MERRELL,

HENRY W. PARK.