

CHARLES W. SEATON.

Tabulating Device.

No. 127,435.

Patented June 4, 1872.

Fig. 2.

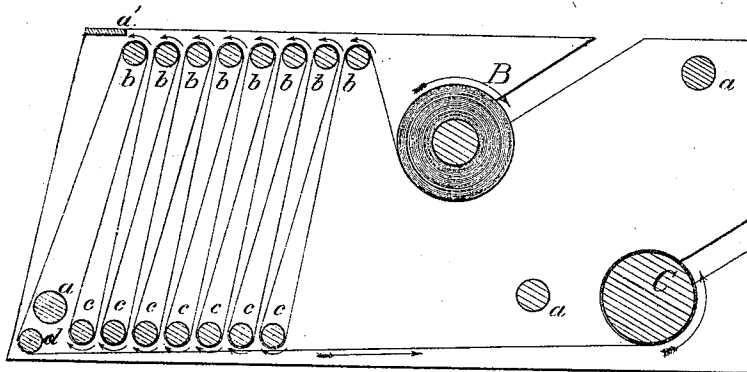


Fig. 3.

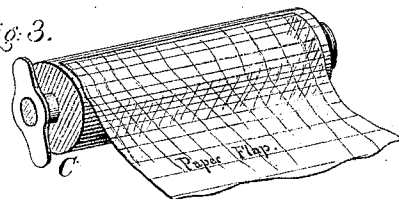
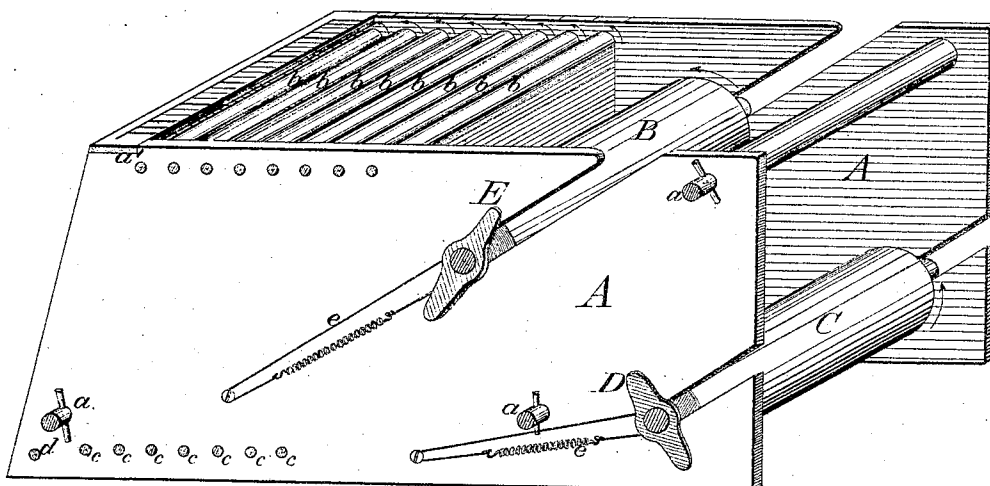


Fig. 1.



WITNESSES:

Geo. H. McNeill.
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INVENTOR:

Chas. W. Seaton

UNITED STATES PATENT OFFICE.

CHARLES W. SEATON, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN TABULATING DEVICES.

Specification forming part of Letters Patent No. 127,435, dated June 4, 1872.

To all whom it may concern:

Be it known that I, C. W. SEATON, of Washington, District of Columbia, have invented a Method and Apparatus for Tabulating Accounts or Schedules of various kinds, of which the following is a specification:

The object of this invention is to form condensed tables of figures or characters with rapidity; and its nature consists in the method of bringing the widely-separated columns or parts of the paper into close proximity, and in the devices employed, as hereinafter set forth.

In the accompanying drawing, Figure 1 is a perspective view; Fig. 2, a longitudinal vertical section of one form of my invention; and Fig. 3 is a perspective view of the drawing-roll and its paper-holding flap.

A A are the two sides of a frame or case, made of wood or other suitable material, which are connected by cross-bars *a, a, a,* and *a'*. Mounted in suitable bearings in this frame is a roll of paper, B, which has been ruled in such lines and columns as the character of the work requires, and evenly and solidly wound. *b b b* are a series of small rolls or bars mounted in the upper part of the frame, and *c c c* are similar rolls in the lower part of the frame. These rolls *b* and *c* may be fixed or revolve in their bearings, and may be placed at fixed distances apart or made adjustable, as desired. *d* is a guide-roll in the lower part of the frame. C is a receiving-roll, upon which the paper is wound, and by which it is drawn through the apparatus. D is a handle attached to the shaft of the roll C; and E, a similar handle attached to the shaft of the roll B. *e e* are tension or friction-straps passing over the shafts of the rolls B and C. The cross-bar *a'* of the frame as also the upper edges of the frame A have graduated spaces for the insertion of the names of the divisions upon the schedule to be tabulated. The lines upon the bar *a'* corresponding with the ruled lines of the paper, and those upon the edges of the frame coinciding with the centers of the spaces between the rolls *b b*.

The operation is as follows; The end of the ruled paper on the roll B is drawn over and under the rolls *b c*, as clearly shown in Fig. 2, over the guide-roll *d*, and to the drawing-receiving roll C, and fastened to it by means of

a suitable flap, *f*, gummed to the roll, as shown in Fig. 3. The apparatus is then ready for the tabulation. The operator, having the apparatus placed in a convenient position before him, and also the schedule to be tabulated, reads the first item of the schedule, and then makes a check or other mark upon the space on the paper on one of the rolls *b*, which corresponds in character with the item, as indicated by the spaces upon the bar *a'* and the edges of the box or frame. After having checked all the items upon a page of the schedule, or filled any one of the columns, a column-line is drawn upon the paper at the side of each roll *b* by resting the pencil upon each adjoining roll and using it as a rule. The drawing-roll C is then turned, by its handle, in the direction shown by the arrow, sufficiently to cause the paper to move over the rolls *b* and present new columns to be checked in a similar manner, and thus to continue until the columns of one table meet the columns of its succeeding table, each table being of one character of the extent of the paper from one roll *b* under one roll *c* and to the next or adjoining roll *b*. A series of tables having been checked, the roll C is turned so as to draw the paper containing the first table, and hold it stretched across the open bottom of the box. The box is then turned bottom up, and the table is recapitulated. This table is then drawn on the roll C, and the second table is recapitulated, and so continued until all of this series of tables is recapitulated, when a fresh surface of paper will be presented upon the rolls *b*, and another page or portion of the schedule can be tabulated, and thus *ad infinitum*.

The number of these column-rolls *b* and their corresponding rolls *c* will correspond with the number of tables which are required to contain all of the separate classes of items in the schedule to be tabulated, and the distance apart of the two series of rolls *b* and *c* will correspond with the size of tables to be made. It is evident that a series of bars or a series of clamps may be used instead of rolls without departing from the spirit of my invention.

The novelty of this invention consists, mainly, in the method of bringing the paper into such form that columns wide apart on paper, as extended, are brought close together.

On the rolls shown in the model the columns resting on any pair of the rolls *b* are only three-fourths of an inch apart, but with the paper out of the machine, the same columns are fifteen inches apart.

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

1. In a machine for tabulating, one or more series of rolls or bars, or their equivalents, arranged in such a manner as to bring widely-separated columns on the extended paper into close proximity in the machine.

2. The combination of the roll *C* with the guide-roll *d* and rolls *b* or their equivalent, substantially as set forth.

3. The herein-described method of tabulating, substantially as set forth.

4. The flap *f*, attached to a paper-roll as shown, for the purpose of attaching the end of the paper to the roll.

CHARLES W. SEATON.

Witnesses:

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