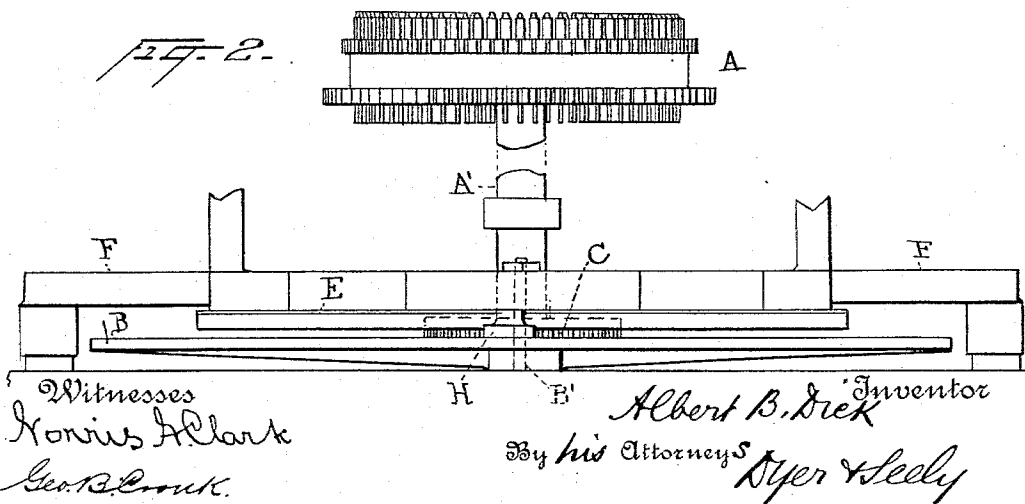
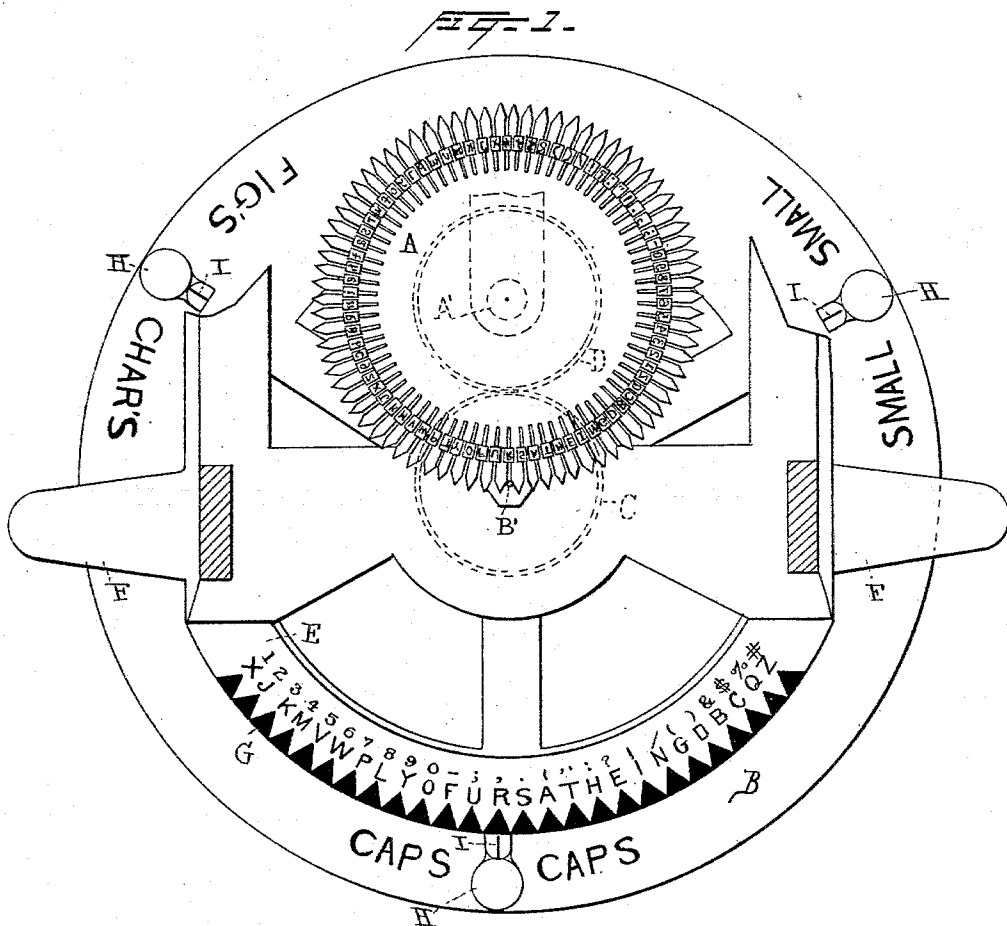


(No Model.)

A. B. DICK.
TYPE WRITING MACHINE.

No. 533,530.

Patented Feb. 5, 1895.



Witnesses
Morris A. Clark
Geo. B. Clark.

Albert B. Dick Inventor
By his Attorneys
Dyer & Seely

UNITED STATES PATENT OFFICE.

ALBERT B. DICK, OF CHICAGO, ILLINOIS.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 533,530, dated February 5, 1895.

Application filed December 5, 1893. Serial No. 492,818. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. DICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Type-Writing Machines, of which the following is a specification.

This invention relates to an improved form of operating board for a typewriting machine. In an application filed by me August 30, 1893, Serial No. 484,355, I described a typewriting machine of simple and economical construction. Said machine in general terms may be described as comprising a revoluble type wheel carrying type in a horizontal plane, said type being loose therein and vertically movable, the vertical movement being communicated thereto by means of a hammer striking the same, said hammer being operated through suitable mechanism. The type are brought into printing position through the medium of an operating board which comprises a sector shaped plate upon which appear the characters corresponding to the characters on the type wheel and arranged in the same order as are the type of the type wheel, and an index lever moving over said sector plate and carrying at its inner end a gear meshing with a gear on the type wheel whereby by the movement of the lever to a position registering with any given character on the sector plate, a character corresponding thereto, will be brought into printing position on the type wheel. This operating board required accuracy in registration between the index lever and the sector plate.

The object of my present improvement is an operating board whereby greater freedom of registration will be permitted and hence the speed of operation increased. This object I accomplish by dividing the type on the type wheel into groups, and by providing an index for each group. I preferably employ a revoluble index wheel, the movement of which, through suitable gearing or by a direct connection with, moves the type wheel, said index wheel moving in front of a fixed character board. The characters on this character board, so far as the letters are concerned, may be arranged in the order of greatest use, the same order being observed on the type wheel, all the capital letters, however, being

grouped together, all the small letters being in another group, and all the figures, punctuation marks, &c., forming another group.

In the drawings, Figure 1 is a plan view of sufficient of my improved machine to show the operation of the operating board, and Fig. 2 is a front elevation thereof.

A represents the type wheel, and B the index wheel.

I have shown gearing C, D, intermediate the index wheel and the type wheel, whereby by the movement of the index wheel the type wheel is operated, but it is obvious that the hub of the index wheel might be directly connected to the spindle of the type wheel, and thus drive the same without intermediate connections. As shown, the type wheel is carried by a spindle A', supported above the plane of the index wheel while the index wheel is supported on a spindle B', the spindles or posts A' and B' carrying the gears D and C respectively.

E is a character board suitably supported from the frame F of the machine. As shown, the letters on said character board are arranged in one row, with the figures, punctuation marks, &c., arranged in another row behind them. The front of the character board which is arc shaped, is divided into spaces G, each space indicating the distance within which the index mark on the index wheel must be brought to bring the letter, character or punctuation mark opposite thereto into printing position. The characters on the type wheel are divided as shown into groups of capitals, small letters, figures, punctuation marks, &c. The index wheel is divided into three sectional spaces, one space for capitals, another for small letters, and a third for figures, punctuation marks, &c. Each space is provided preferably with a finger piece H opposite which is an index line I. The finger piece may be used to rotate the wheel to bring the index line I into registration with the spaces G on the character board if desired, although the finger may be placed on the index wheel itself and the index line thus brought into registration. The operation of this character operating board will readily be understood. In the drawings the index wheel is shown with the section thereof corresponding to the capitals on the type wheel in position in

front of the character board, the index line I being opposite the space G pointing to the letter "R." With the index wheel in this position the capital letter "R" on the type wheel will be in printing position. If now we suppose the index wheel to be revolved and a corresponding motion thereby transmitted to the type wheel and the index line I in the division devoted to small letters brought into registration with the space G opposite the letter "R" on the letter board, small letter "r" will be brought into printing position on the type wheel. If the index line I on the division of the index wheel devoted to figures, characters, &c., be brought opposite the space G in front of the letter "R," then the comma on the type wheel will be brought into printing position, said comma appearing behind "R" in the character board.

It will be thus seen that by dividing the type on the type wheel into groups, I am enabled to increase the space of registration between a movable index and its character plate or board, it being understood that the characters of each group on the type wheel are arranged in the order or series indicated on the index or scale board; that is to say, as both the groups of capital and small letters are indicated by the same series of letters on

the scale board, both groups of letters on the type wheel will be in the same order or series as shown on the scale board, and so with the figures, punctuation marks, &c.

It is obvious that instead of employing an index wheel, index arms radiating from the same center might be employed, one for each group of characters on the type wheel.

What I claim is—

In a typewriting machine, the combination of a frame, a revoluble type-wheel mounted in said frame, a segmental character board supported at or near the bottom thereof, and provided with characters arranged in groups, an index wheel connected with said type-wheel and revolubly mounted in said frame beneath said character board and of larger diameter than the same, and finger pieces carried by said index wheel, outside of said character board, and corresponding to the groups on the character board, substantially as described.

This specification signed and witnessed this 20th day of November, 1893.

ALBERT B. DICK.

Witnesses:

GEO. B. CRONK,

W. PELZER.