

W. B. ALLYN.
KEYBOARD FOR TELEGRAPH INSTRUMENT.

No. 80,049.

Patented July 21, 1868.

Fig. 1.

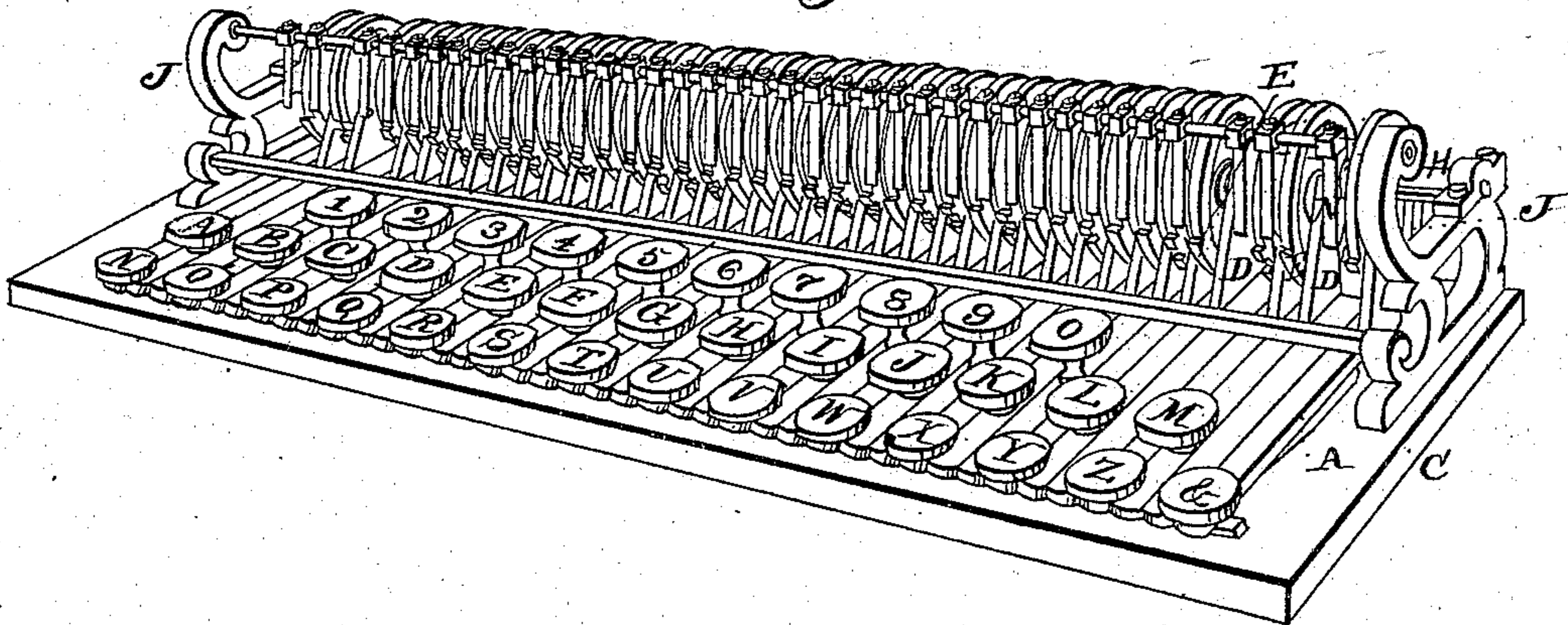


Fig. 2.

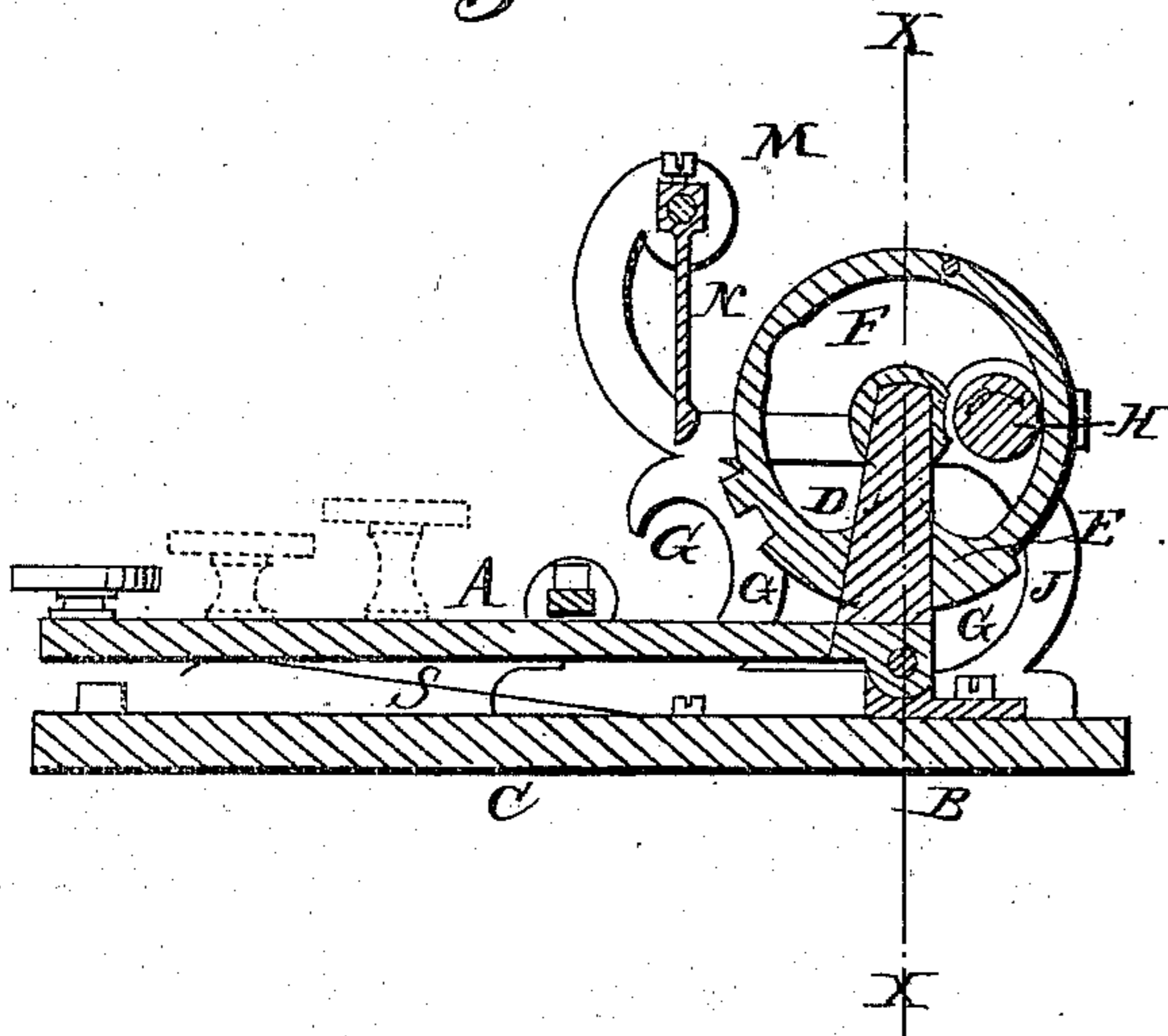


Fig. 3.

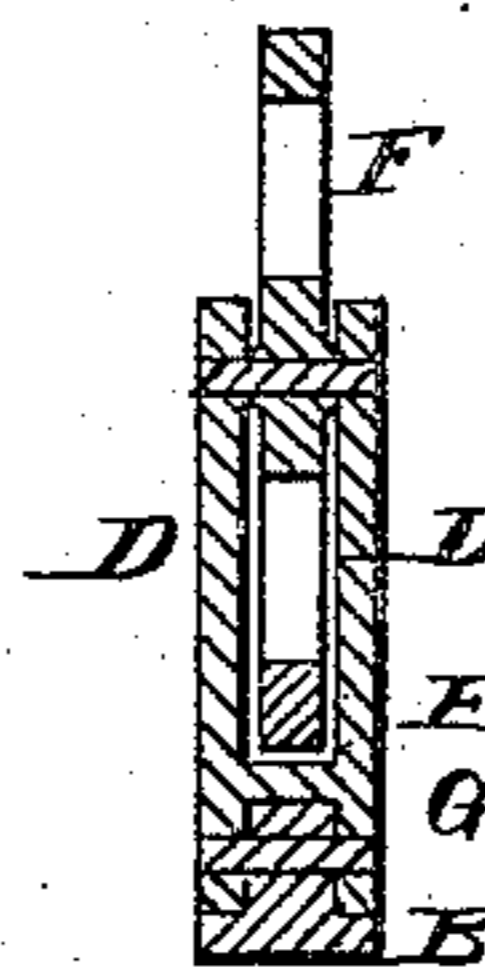
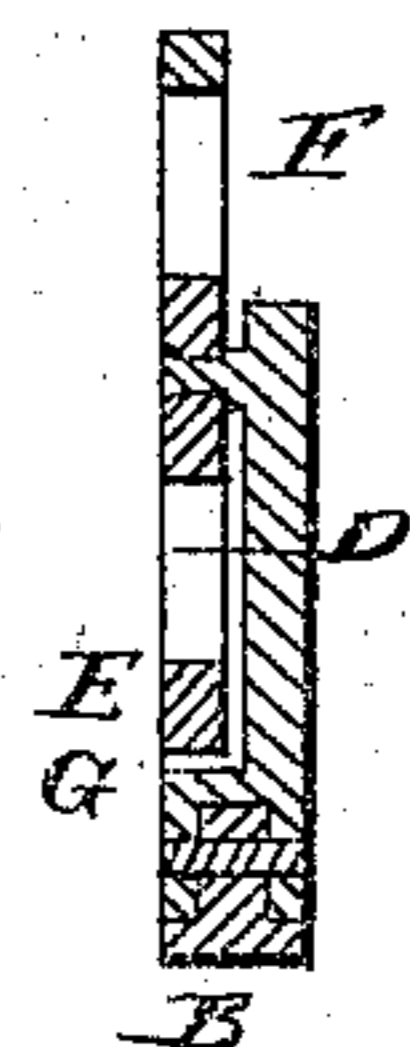


Fig. 4.



Witnesses;

Alex. Ganther
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UNITED STATES PATENT OFFICE.

WILLIAM B. ALLYN, OF BOSTON, MASSACHUSETTS.

IMPROVED KEY-BOARD FOR TELEGRAPH-INSTRUMENTS.

Specification forming part of Letters Patent No. **80,049**, dated July 21, 1868.

To all whom it may concern:

Be it known that I, WM. B. ALLYN, of Boston, in the county of Suffolk, in the State of Massachusetts, have invented a new and improved key-board for magnetic telegraphs of that description in which dots and dashes are used to represent letters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a longitudinal elevation of a single key and its appurtenances; Fig. 3, a transverse vertical section of the same, the line X X, Fig. 2, indicating the plane of section. Fig. 4 shows the same section as Fig. 3, but of a different design.

The nature of my invention consists in providing a separate key for every character used, and that one depression of each key will produce its respective letter or character complete.

To enable others skilled in the art to make and use my invention, I will proceed to give a description of the construction and operation of one of the keys with reference to the drawings, which will apply to them all.

A represents a key the front end of which can be made in any desired form. At the back end it is pivoted to a block, B, which is firmly secured to the base C.

E represents a wheel consisting of a rim and a hub with but one connection between them, and is suspended on a shaft having its bearings in the uprights D D', which are attached to the upper side of the key, immediately over the pivot, as shown in Fig. 3 of the drawings, or can be suspended on a stud attached to a single upright, as clearly shown in Fig. 4 of the drawings. On the periphery of the wheel E are projections G, in the form of dots and dashes, by the arrangement of which the letter or character is produced. Extending through the opening F, formed by the rim and hub of the wheel E, is a roller, H, covered with india-rubber or other soft material, and has its bearings in journal-boxes in the frames J J.

The diameter and position of the roller H is such that a slight horizontal movement of the wheel will cause the rim or the hub to come in contact with it; and in order that it may revolve without undue friction when the wheel E is at rest, the opening F is enlarged at the points at which it is desired the wheel should stop—once in the rim and once in the hub.

M represents a rod secured at its ends in the frames J J, and is insulated at the points of contact, and suspended on the same is an arm, N, adjustable by means of a set-screw.

S is a spring seated under the key to keep it raised in a position parallel with the base.

The action of my key-board will be readily understood by referring to Fig. 2 of the drawings. The roller H is revolved by clock-work or other power in the direction indicated by the arrow marked on it. If the key is depressed the uprights D D' incline forward and bring the inner surface of the rim of the wheel E in contact with the roller H, and the wheel is revolved sufficiently to carry all of the projections on its periphery in contact with the arm N, which is adjusted to bear against them as they pass, and the circuit is complete (when the instrument is suitably connected) while the projections are in contact with the arm N. When the pressure on the key is removed it is raised by means of the spring S, and by the backward movement of the uprights the hub is brought in contact with the roller, and the wheel is revolved back to its starting-point, the projections passing without coming in contact with N in the backward movement.

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

1. The wheels E, the uprights D D', one or two to each key, the roller H, when constructed and operating as herein shown and described.
2. The rod M, in combination with the arms N or their equivalent, substantially as described, for the purpose set forth.

WM. B. ALLYN.

Witnesses:

ALEX. GAUTHIER,
JAMES A. YOUNG.