(No Model.)

J. A. LUTZ.

TRANSPOSING ACTION FOR KEYBOARD MUSICAL INSTRUMENTS.

No. 246,524. Patented Aug. 30, 1881.

Fig. 4.

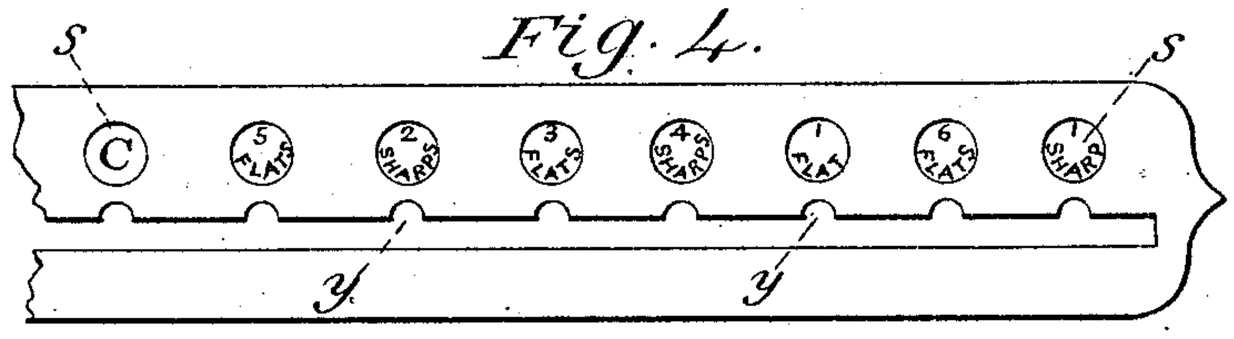


Fig. 2.

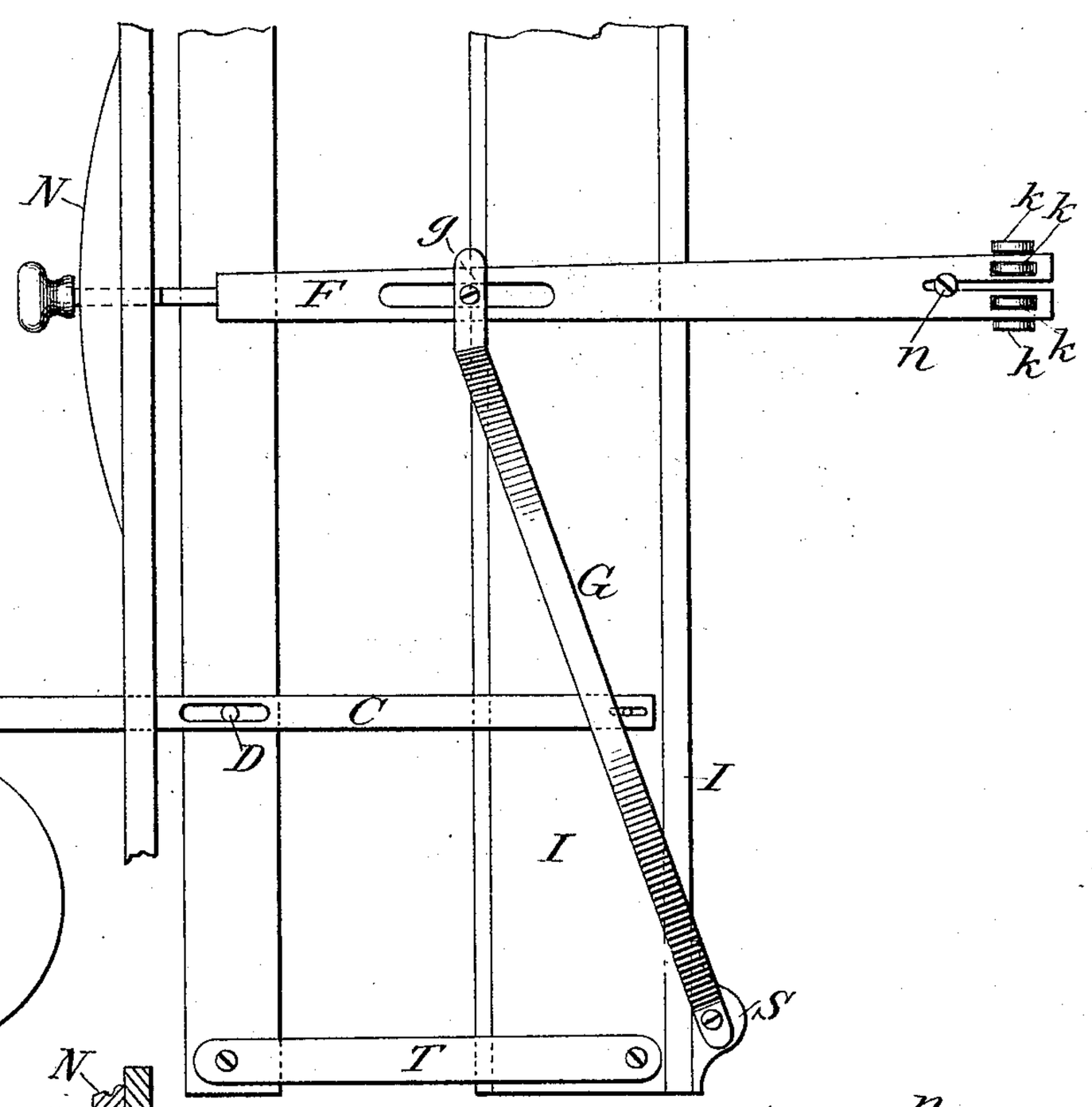


Fig. 3.

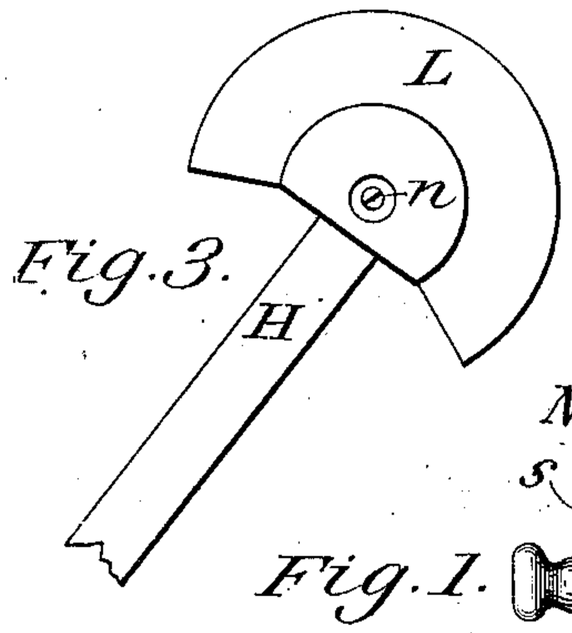
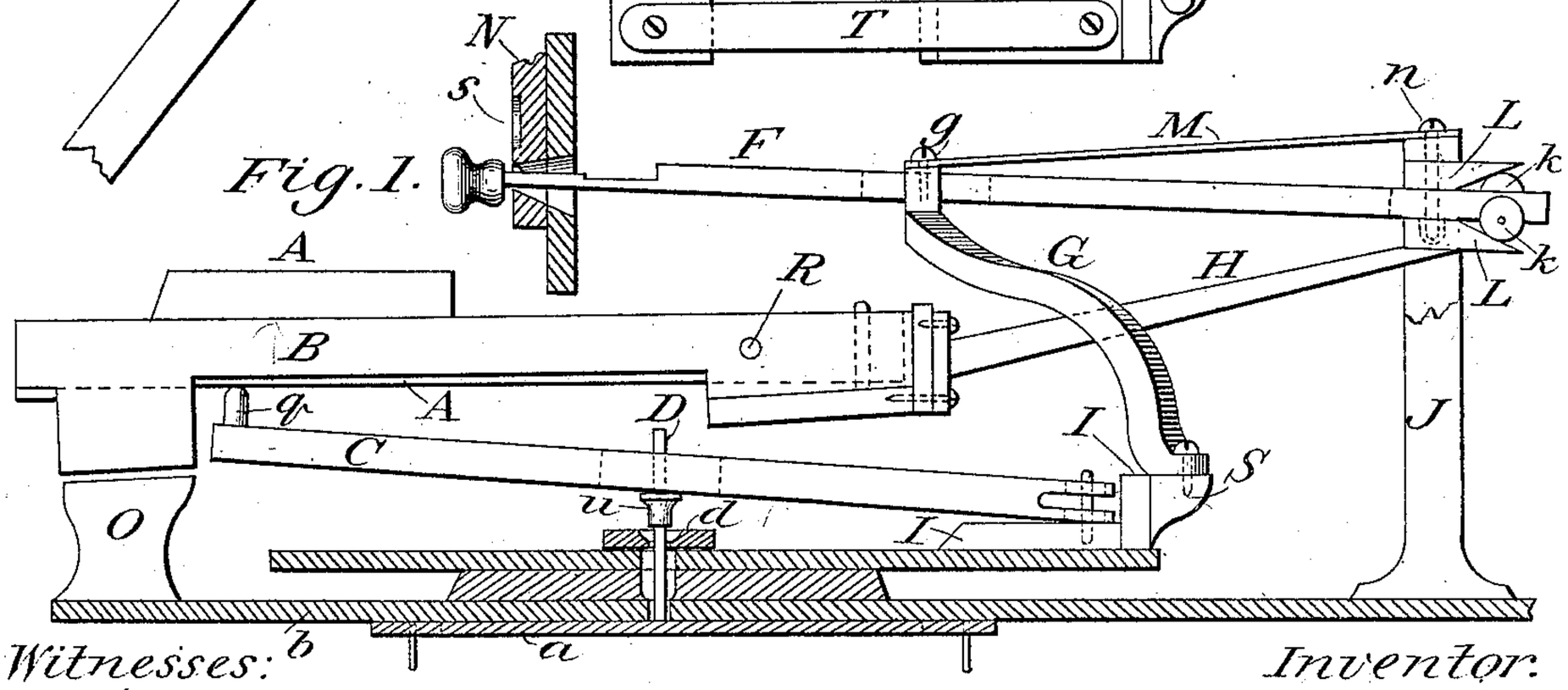


Fig. 1.



Witnesses:
H. H. Hauger
J. E. Hauger

Inventor:
John Augustus Lutz

UNITED STATES PATENT OFFICE.

JOHN A. LUTZ, OF CHURCHVILLE, VIRGINIA.

TRANSPOSING-ACTION FOR KEY-BOARD MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 246,524, dated August 30, 1881.

Application filed May 26, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN AUGUSTUS LUTZ, a citizen of the United States, residing at Churchville, in the county of Augusta and State of Virginia, have invented a new and useful Improvement in Transposing-Actions for Organs, Melodeons, and other similar Musical Instruments, of which the following is a specification.

Music written and prepared by musicians is written in keys which correspond to the keys of organs and similar instruments, and of which there are twelve in ordinary use. Of these the key of C is the fundamental key and all the others are transposed keys. It is difficult for persons who have not been taught the system of instrumental music to play on an instrument in these transposed keys; but persons who have but a limited knowledge of the vocal system can readily learn to play in the key of C major. If, therefore, an instrument can be made to transpose mechanically into any other key in ordinary use, the art of playing is made comparatively easy, and this is mainly the object of my invention.

In the drawings, Figure 1 is a vertical cross-section of an action containing my improvement. Fig. 2 is a top view of the same. Fig. 3 is a top view of the conical-shaped plates used to elevate the key-board. Fig. 4 is a front view of a section of the register.

Similar letters of reference indicate corresponding parts in all the figures.

A A, Fig. 1, are the ordinary finger-keys, and B represents the key-board, upon which these keys are mounted.

H is a projecting lever secured to the back of the key-board, and provided at the far end with a conical-shaped plate, L. The key-board is pivoted at each end at R.

C is a transposing-key, of which there is one to every key on the finger-board. They are provided with pins *q* at the forward end, which bring them into contact with the finger-keys, and are mounted at the far end upon the transposing key-board I I. The pitman or valve-pin D is forced through an eyelet, which serves as a collar for the transposing-keys to rest upon. The upper end of the pitman passes through a slot in the transposing-keys, and its lower end rests upon the valve *a*.

J is a standard secured to the reed-board, and provided at the upper end with another conical-shaped plate, L, which is the counterpart of the one on lever H.

F is the transposing-stop, provided at the rear end with three or four revolving disks, K, so placed that two of them project below and the others above, as shown in Fig. 1.

G is a connecting-rod, which connects the transposing key-board I I with the stop F at S and *g*.

M is a parallel rod which serves to hold the connecting-rod G at an equal distance from the standard J.

T, Fig. 2, is a connecting-bar, one at each end of the transposing key-board, and serves to connect the key-board I I with the guide-strip *d*.

N, Figs 1 and 2, is the register which contains the signatures of the different keys in music, and is provided with a longitudinal slot and concaved recesses for a purpose hereinafter explained, and as shown in Fig. 4.

The conical-shaped plate L, which is fastened to the standard J, is provided with a pin, *n*, Figs. 1 and 2, which passes through a slot in the stop F and into a socket in the plate L on the projecting lever H. It will be noticed that if the stop F is drawn forward until the pins which form the axes of the revolving disks K strike the pin *n*, the two plates L L will be forced apart a distance equal to the projections of both disks above and below the stop. The upper plate being permanent will cause the lower to be forced down, thereby elevating the key-board B and keys A A, and thereby relieving the keys A A from contact with the transposing-keys C. It will further be seen that if the stop F be thus drawn and be moved laterally to the right or left, the transposing-key board I I will be moved with it in the same direction, and as the transposing-keys are pivoted upon the pitman D, resting on the collar *u*, their front ends, containing pins *q*, will be swung around in an opposite direction, being guided by the connecting-bars T, Fig. 2. In this way the pins *q* of each transposing-key may be brought in contact with twelve different finger-keys, and thus the transposition effected.

In the front end of the stop F is inserted a round metallic rod which connects with the stop-knob. The back portion of this rod is

flattened on top, as shown in Fig. 1, so that when the stop is drawn until the round part of rod has passed through the concaved recess *y*, Fig. 4, the flattened part will allow the stop to be moved laterally through the slot in the register until the stop is brought to a recess beneath the signature of the key in which the player wishes to play. If the stop-knob be then released the weight of the key-board and keys will draw the stop back, and the finger-keys are brought into contact with the transposing-keys, the key-board B resting on the pad-block O.

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

1. In a transposing-action for key-board musical instruments, the pitman D, provided with a collar, *u*, in combination with the transposing-lever C, arranged, as described, to have a pivotal bearing on collar *u*, whereby its front end may be brought into different positions under the keys A A, as and for the purpose specified.

2. In a transposing-action, the combination of the pitman D, transposing-keys C, and sliding key-board I I, arranged as herein described.

3. In a transposing-action, the combination of the tilting key-board B, projecting lever H, conical-shaped plates L L, transposing-stop F, connecting-rod G, register N, sliding key-board I I, transposing-keys C, and pitman D, all combined and arranged as herein set forth.

JOHN AUGUSTUS LUTZ.

Witnesses:
H. H. HANGER,
F. G. KELLER.