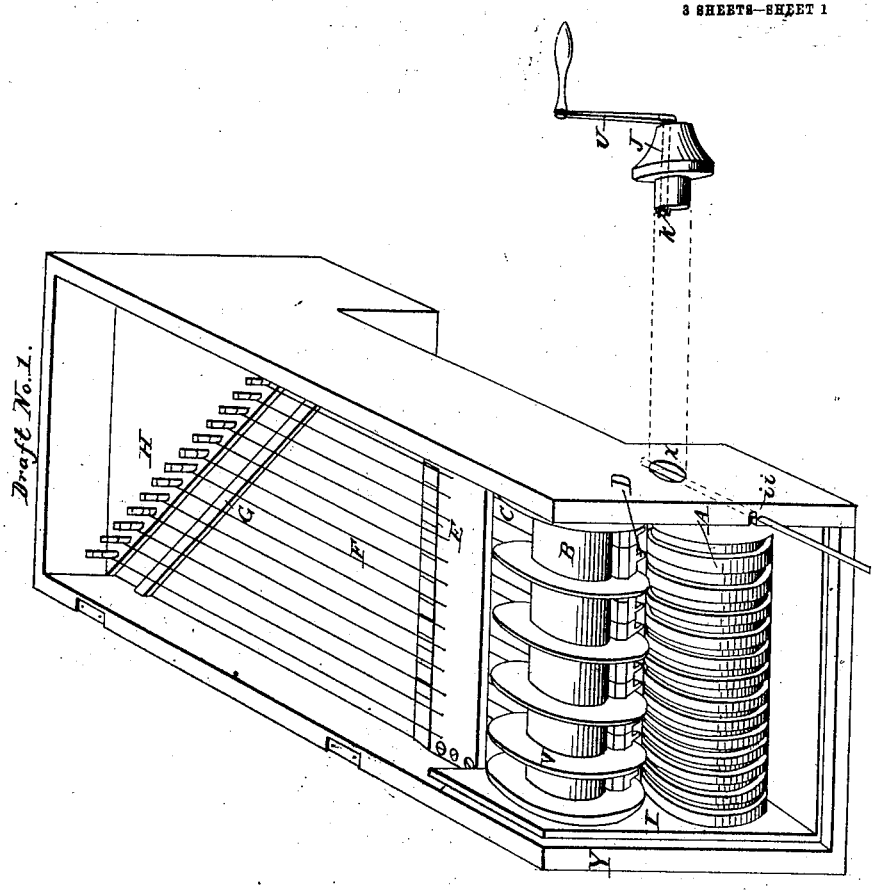
PATENTED JAN. 9, 1849.

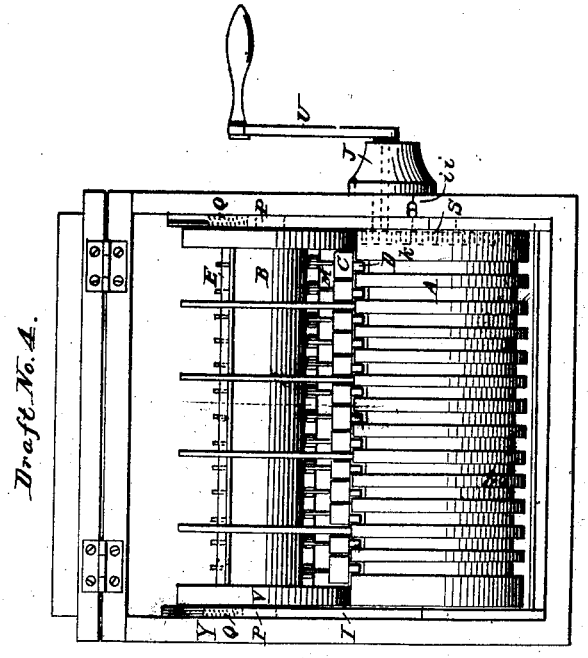
No. 6,006.

A. F. HUNT & J. S. BRADISH.

MUSICAL INSTRUMENT.

3 SHEETS—SHEET 1





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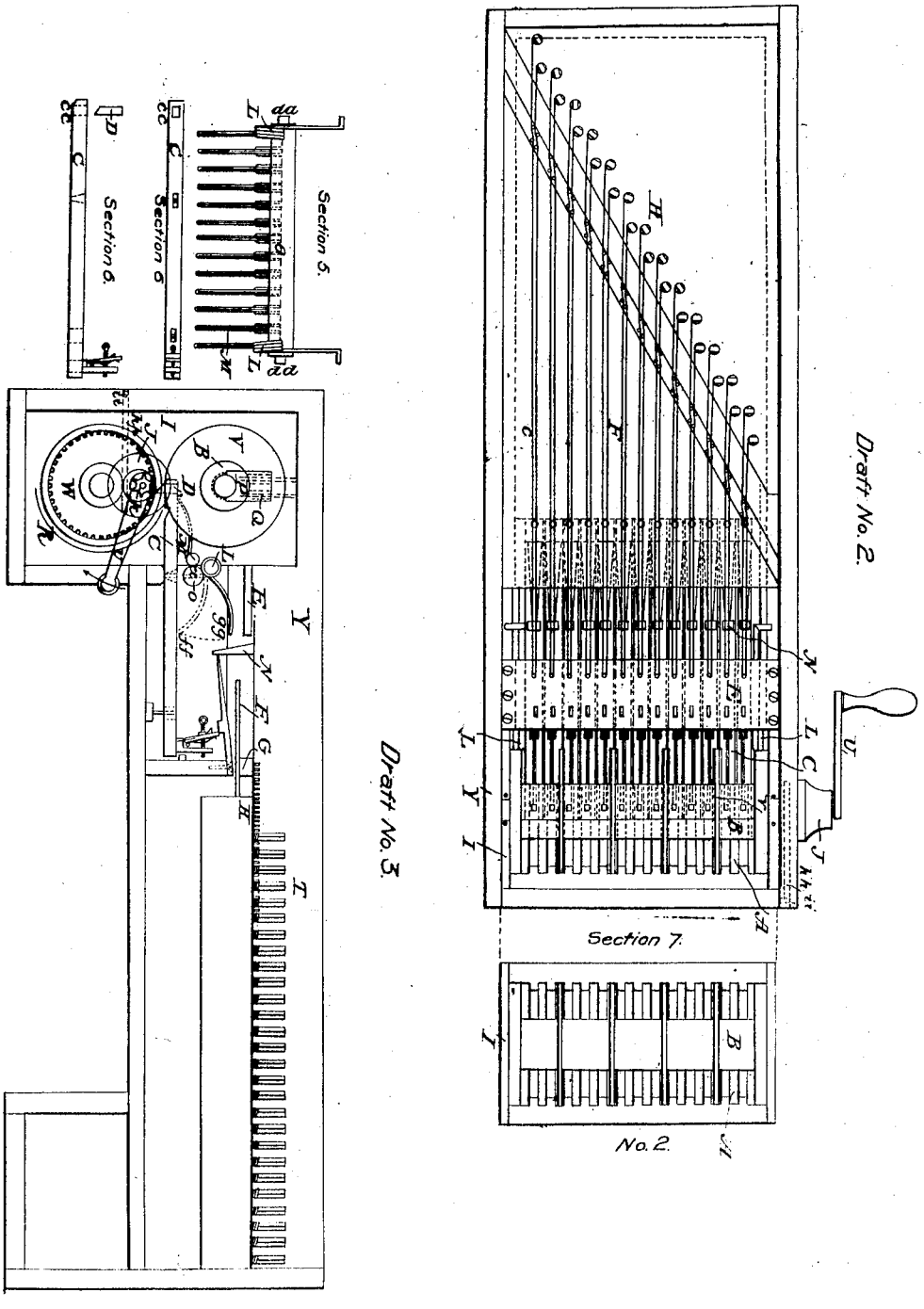
3 SHEETS—SHEET 2.



No. 6006.

No. 8.
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W
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V

Viaccom Draft No 10
A B C D E F G A B
AULD LANG SYNE

UNITED STATES PATENT OFFICE.

A. F. HUNT AND J. S. BRADISH, OF WARREN, OHIO.

MODE OF MAKING AND PLAYING TUNES TO PRODUCE MUSIC.

Specification of Letters Patent No. 6,006, dated January 9, 1849.

To all whom it may concern:

Be it known that we, ADONIRAM F. HUNT and JAMES S. BRADISH, of Warren, in the county of Trumbull and State of Ohio, have invented a new and Improved Mode of Making and Playing Tunes to Produce Music; and we 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—

Draft No. 1 is a perspective view, No. 2 a top view, No. 3 a longitudinal elevation, No. 4, front end view, Section 5 a top view of springs and shaft, No. 8, a perspective view of frame and rollers.

To enable others who are skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We take a sheet of pasteboard or part of a sheet as the range of the tune may require, this we rule with staff, ledger and measure lines, as shown by the accompanying theorem Draft No. 10. Suppose we wish to make the tune "Auld Lang Syne" as shown by said theorem Draft No. 10. This tune commences on D, therefore we cut a hole through the sheet as shown by the black figures in the same draft. The next three notes come on G. We also cut through as before and so on until we have cut a hole in the place of each note in the tune. You will observe that some of the holes are larger than others, the square ones are accented notes. The manner in which the accent is given will be explained hereafter. In order to explain the manner in which this theorem produces the desired effect we will refer you to the accompanying drafts, No. 1 represents a perspective view of a model of a pianoforte with the keys at one end as shown at C in Drafts 1, 2, 3, and 4, instead of the side as is usual. In every other way it is like a common pianoforte with common action. The improvement we propose attaching so that our theorem tunes will produce the desired effect is first, a frame indicated by I, Draft No. 8 formed by framing together three boards as shown at *a*, *a*. This frame I contains two rollers A and B as shown by section 7, Draft No. 2. The frame with its rollers is slid into the case Y as shown in all the machine drafts. The under roller A has grooves turned in it as shown by its draft.

C represents in each draft a finger key such as is used in all pianofortes with the exception of the little gib or cam D which is fastened in the mortise *c*. *c*. made in the end of the finger key C, section 6, Draft No. 3. This gib or cam D fits in the grooves of the roller A as represented in Drafts 1 and 4. Each key with its gib or cam is pressed down into the grooves of roller A, by means of a smart wire spring above as shown by M, Draft 4. The said springs M are fastened into shaft O as seen in Draft No. 3, and also in Section 5. L represents in the same drafts two strong wire springs which are also fastened to shaft O. The said shaft has a pivot turned on each end as shown by *d*. *d*. Section 5. These pivots fit in holes made in case Y, as shown by *e*. *e*. Draft No. 3. Now we will suppose you strain springs L from *f f* to *g*, *g*, as shown in Draft No. 3, the tendency would be to turn shaft O, which would cause the spring M, to bear down on finger keys C, as shown in same draft.

The upper roller B is formed by fastening disks or collars on to a shaft of any material to answer the purpose. These disks as shown by V are pressed down on the ridges of the lower roller A by means of springs represented by a pressing on box P, in Drafts 3 and 4. The lower A has a recess, turned in one end as shown at W in drafts Nos. 3 and 8 to admit the pinion *k*, which works in the cogs or teeth S, as shown in Drafts 3 and 4. Now we will suppose you take hold of the crank U and turn in the direction indicated by the arrow in Draft No. 3 and at the same time insert the theorem between the rollers A and B. The rollers A and B being strongly pressed together by the springs *a* pressing on the box P, as seen in Drafts 3 and 4 will draw in the theorem until it comes in contact with the angles of the gibs or cams D, when they will all mount onto the theorem. Now the first hole in the theorem is cut on D, and the gib in key note D will drop in as the theorem is moved on, and tilt up the other end of the key which will force the hammer N (shown in Drafts Nos. 2 and 3) up against the string D, and produce the desired note; so each gib will fall in at its proper time so long as you turn the crank and insert the theorem tunes. R in Drafts Nos. 3 and 8 represents a piece of

tin which serves to conduct the theorem back in the direction from which it started so that you can play the same tune over and over, as many times as you choose. The said piece of tin fits in the groove *b b* in frame I, Draft No. 8. Accent is produced by letting the gibs or cams strike deeper; for this purpose the holes are cut larger in the sheets or theorems. These theorems are to be so made that they can be hooked or caught together so as to form an endless band if desired.

J represents in Drafts 1, 2, 3, and 4, a hub through which the pinion shaft passes. This hub is so made that it holds frame I in its place, it can be drawn out of the hole X Draft No. 1 with its pinion as shown in the same draft, if you have occasion to detach frame I. It (the said hub) is to be fastened in its place by means of a pin indicated by *h. h.* passing into hole, *i i* Draft No. 1.

E represents in each draft a pin plate.

F represents in Drafts Nos. 1, 2, and 3, a common sounding board, G a common bridge, H a common tuning pin board, T the pins.

What we claim as our invention and desire to secure by Letters Patent is—

1. The making and application of detached sheets, plates or theorems; prepared by perforating, indenting, or otherwise adapting them to operate hammers, weights, keys, valves, levers, wires or springs to produce music or musical tunes, using for the said sheets, plates, or theorems any metal or material which will produce the intended effect.

2. We also claim the right to hook or catch the ends of the said sheets, plates or theorems together so as to form an endless band if desired, and the right to use the above described gibs or cams D, springs M and L, movable frame I and rollers A and B, as arranged in the accompanying drawings, the said rollers prepared by grooving or otherwise adapting them to give motion to said sheets, plates or theorems for the purpose of producing music or musical tones by operating hammers, weights, keys, valves, levers, wires or springs.

ADONIRAM F. HUNT.
JAMES S. BRADISH.

Witnesses:
JNO. CLOBRIDGE,
SELDEN IVES.