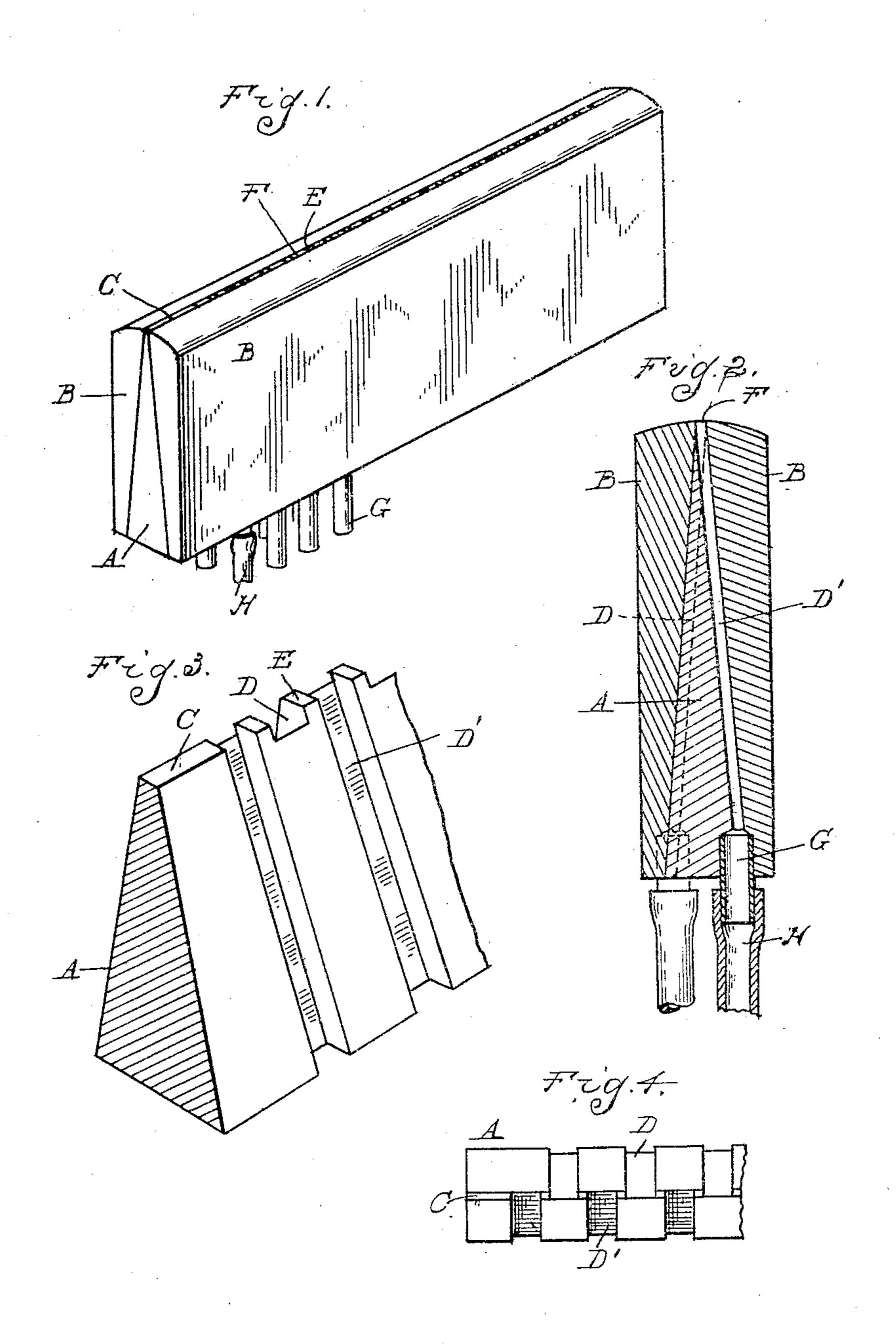
A. ANGSTMAN. TRACKER BAR. APPLICATION FILED FEB. 8, 1904.



Witnesses Land A. Garage Jac. P. Barry. Treventor Adam Angstman By James Whitlems

United States Patent Office.

ADAM ANGSTMAN, OF DETROIT, MICHIGAN, ASSIGNOR TO FARRAND ORGAN COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

TRACKER-BAR.

SPECIFICATION forming part of Letters Patent No. 778,734, dated December 27, 1904.

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To all whom it may concern:

Be it known that I, Adam Angstman, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Tracker-Bars, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to new and useful improvements in tracker-bars for musical instruments; and it consists in the construction, arrangement, and combination of parts, as more fully hereinafter described, and particularly

pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved tracker-board. Fig. 2 is a vertical central section thereof. Fig. 3 is a perspective view of the middle member of which the bar is made, and Fig. 4 is a plan view thereof.

In the manufacture of tracker-boards for musical instruments it has been found difficult to produce one in which the air passing through the passages therein will not make a 25 hissing sound which would be audible to persons near the instrument. This has been found to arise in many instances from the fact that there are shoulders in the abrupt turns in the passages through the bar. Previ-30 ous constructions also in many instances have been quite expensive to manufacture. My invention is intended to give an unobstructed passage for the air which will be substantially noiseless in operation, which is easily 35 and cheaply manufactured, and which produces a substantial and permanent structure.

The herein-described embodiment of my invention I have shown as made in three parts, the middle member A and the two side members B. If made of wood, I construct the middle member A of a tapering board, the base being preferably slightly narrower than the total width of the tracker-bar and the upper portion of a width equal to the width which it is desired to make the inlet-ports, this upper face being shown at C. I then, by a suitable saw or other cutting-tool, form upon opposite sides of the middle member the grooves or channels D and D', the grooves

D being upon one side of the board and the 5° grooves D' upon the opposite side of the board. The grooves D are separated from the grooves D' by the web portion E, which in this case is formed of an uncut portion of the upper face C of the middle member. The 55 grooves D and D' cut clear through the upper face C, as plainly shown in Fig. 4. I then apply the two side members BB to the opposite grooved faces of the middle member and secure them in position firmly. In case they 60 are of wood I tightly glue them together as a preferable form of construction, making a solid board of the three members. When the three members are thus secured together, the grooves D and D' will be closed by the side 65 members and there will be on the upper face of the board a series of alined ports F, these ports being formed by the upper ends of the grooves, and between these ports will be the uncut portions or webs E, as shown in Figs. 1 and 4. As 7° will be seen by examining Fig. 2, these passages thus formed through the bar will extend from a common line at the top and diverge toward the base. In order to secure the ordinary pipes or tubes to the tracker-board, 75 I form counterbores G in the under side of the bar in line with the passages therethrough and secure the tubes H therein in any desired manner.

What I claim as my invention is—

1. A tracker-bar comprising a middle member and side members secured over the opposite sides of the middle member, the upper portions of the respective members constituting the bar-face and grooves intermediate the meeting faces of the members, forming alined ports on the upper face of the bar.

2. A tracker-bar comprising a middle member having upwardly-converging sides and staggered grooves on opposite sides thereof, 90 the grooves extending across the narrow face of said member, and side members secured to opposite sides of the middle member, covering the grooves, and forming a solid tracker-bar with continuous passages.

3. A tracker-bar comprising a middle tapering member, grooves alternately upon opposite sides thereof said grooves at their upper end extending across the narrow face of said member leaving interposed alined webs, and facing or side members secured to the middle member over the grooves to form two series of passages extending from a common line at the top to separated points at the bottom, and means for securing pipes or tubes at the bottom of said passages.

4. A tracker-bar comprising sections secured together and having intermediate grooves constituting a series of uninterrupted passages through the bar, said passages terminating in a series of alined ports at the top and in separated series of ports in the base.

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5. A tracker-bar including an intermediate 15 member having upwardly-converging sides and staggered grooves in said sides, and side members, the surfaces of which converge complementary to the respective sides of the intermediate member, the upper surface of the 20 members when joined forming the upper surface of the tracker-bar.

In testimony whereof I affix my signature in presence of two witnesses.

ADAM ANGSTMAN.

Witnesses:

Jas. P. Barry, H. C. Smith.

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