A. & O. PHILIPPS.

TRACKER BOARD.

APPLICATION FILED MAY 4, 1911.

1,038,193. Patented Sept. 10, 1912.

Fig. 1.

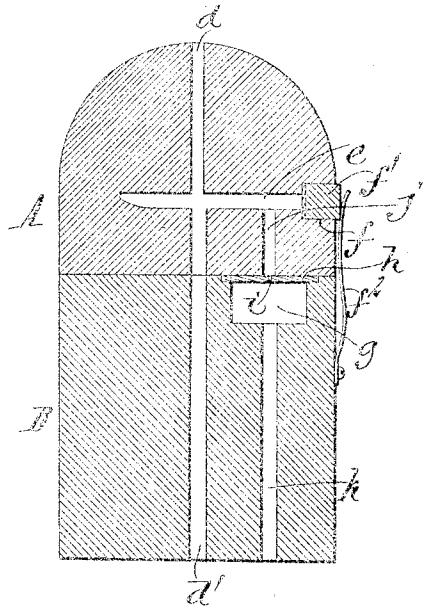
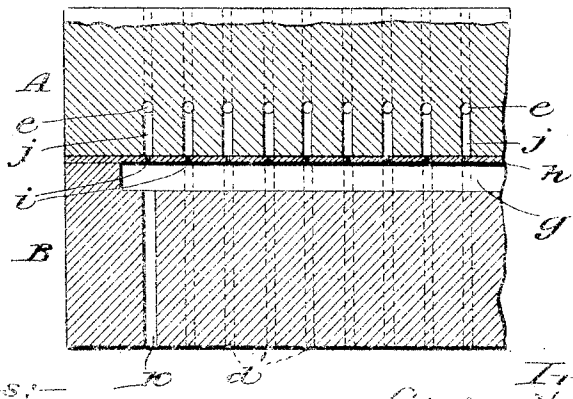


Fig. 2.



Witnesses:—
Richard Dammer
Alfred Bakenhagen.

Inventors
August & Otto Philipps
Oswald Philipps
by Eugen Popp
their Attorneys

UNITED STATES PATENT OFFICE.

AUGUST PHILIPPS AND OSWALD PHILIPPS, OF FRANKFORT-ON-THE-MAIN, BOCKENHEIM, GERMANY.

TRACKER-BOARD.

1,038,193. Specification of Letters Patent. Patented Sept. 10, 1912.

Application filed May 4, 1911. Serial No. 624,996.

To all whom it may concern:

Be it known that we, AUGUST PHILIPPS and OSWALD PHILIPPS, subjects of the Emperor of Germany, residing at Frankfort-on-the-Main, Bockenheim, in the Empire of Germany, have invented new and useful Improvements in Tracker-Boards, of which the following is a specification.

This invention relates to the trackers or tracker boards of automatic musical instruments having a pneumatic action, and more particularly to instruments in which the customary bleed-holes of the valve-operating diaphragms or pneumatics are arranged in a sectional tracker-board instead of in the wind-chest, to facilitate access to such holes for cleaning them when necessary, and further, to withdraw dust, &c., from the tracker ducts and connecting passages and collect it at a point in the tracker-board from which it can be readily removed.

The object of our invention is the improvement of tracker-boards of this type with a view of permitting a more ready and thorough cleaning of the bleed-holes and other ducts or passages thereof.

In the accompanying drawings: Figure 1 is a transverse section of a tracker board embodying the invention. Fig. 2 is a vertical longitudinal section of a fragment of the tracker board taken through the bleed-holes of the covering plate.

The board comprises an upper or face section A and a lower or base section B, the upper section being removably secured to the lower one by any suitable means.

d, d^1 indicate portions of one of the usual tracker or note-ducts extending from the rounded top of the board to the bottom thereof and adapted to be connected by the customary tubes with the corresponding valve-operating diaphragm or pneumatic of the pneumatic action, not shown in the drawing. Connected with or intersecting the portion *d* of each tracker-duct formed in the upper section of the board, is a transverse passage *e* which opens at its outer end into a horizontal groove or recess *f* formed in the side of the board. The outer ends of the several passages *e* are normally closed by a removable cover f^1, preferably seated in said groove and held therein by one or more spring-catches f^2.

g indicates a bleed-duct, wind-channel or chamber arranged lengthwise in the top of the lower section B and closed at its upper end by a covering plate or strip *h* containing a longitudinal series of small openings or bleed-holes *i*, one for each tracker-duct *d*. This perforated plate is carried by the lower section of the tracker board so as to remain in place thereon when the upper section is removed, but the plate is preferably removable from said lower section. As shown in the drawing, said plate is arranged flush with the upper surface of the lower section B, and for this purpose is countersunk in a recess therein. In the construction shown in the drawing, each tracker duct *d*, d^1 is connected with the chamber *g* by the horizontal passage *e* and a vertical channel or passage *j* formed in the upper section A and leading from said passage to the corresponding bleed-hole. A duct or passage *k* formed in the lower section B is adapted to connect the chamber *g* with a source of air pressure or suction, not shown in the drawing, such as the exhaust chamber of the wind-chest or the main suction bellows of the instrument.

Our improved tracker may be used with pneumatic actions operated by either air-pressure or suction. When used with a suction action, the operation of the tracker is as follows: The air is constantly exhausted from the bleed-duct or chamber *g* through the passage *k*. When a note-duct *d*, d^1 of the board is closed by a solid portion of the usual music sheet, the air is withdrawn from the ducts or passages *j*, *e*, *d*, d^1, thus exhausting the air from the front as well as the rear side of the corresponding diaphragm or pneumatic, in the same manner as in instruments in which the bleed-holes are located in the wind chest, thereby equalizing the pressure on opposite sides of the diaphragm and allowing it to remain in its normal position in which the valves operated by it cut off communication between the corresponding motor pneumatic and the exhaust chamber of the wind chest, in a well known manner. At the same time any dust, lint, &c., in the tracker ducts and the passages *e* and *j* are drawn toward and deposited against the upper side of the bleed-hole strip or cover *h*, from which they can be easily removed when required, by an ordinary brush or a cleaning cloth, after removing the top section A of the board but with-

out necessitating the removal of the strip from the lower section of the tracker board. The dust-receiving side of said strip is thus fully exposed and easy of access, permitting it to be thoroughly cleansed, especially when arranged flush with the top of the lower section B, as shown in the drawing. By dividing the tracker board into separable face and base sections and removably arranging the strip or plate *h* at the junction of the two sections, the further advantage is obtained that the plate is readily accessible upon separating the sections, permitting the plate to be easily removed for renewing it or other purposes, by the use of a knife-blade or other suitable means. The transverse passages *e* and the upper portions *d* of the tracker ducts can also be cleansed by removing the cover f^1 and delivering an air-blast into the outer ends of said passages by means of hand-bellows or other suitable means.

We claim as our invention:

1. A tracker board comprising separable sections and having a main or note-duct and a bleed-duct connected with said note-duct, and a member carried by one of said sections and extending across said bleed-duct at the junction of the sections, said member having a bleed-hole which registers with the bleed-duct.

2. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section at its junction with the other section, and a covering plate extending across said bleed-duct at said junction and having a bleed-hole communicating with said note-duct, said covering plate being carried by one of the sections of the tracker board.

3. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section, a covering plate applied to said bleed-duct and having a bleed-hole, and a passage leading from said note-duct to said bleed-hole, said covering plate being carried by one of the sections of the tracker board.

4. A tracker board comprising separable sections and having a main or note-duct, a bleed-duct arranged in one section, a covering plate applied to said bleed-duct and arranged substantially flush with the face of the last named section, said plate being carried by said last named section and containing a bleed-hole, and a passage in the other section leading from said note-duct to said bleed-hole, said plate being arranged between the sections.

5. A tracker board comprising separable sections and having a main or note-duct, a transverse cleaning passage in one section extending from said duct to the side of the board, a cover applied to the outer end of said passage, a bleed-duct arranged in the face of the other section, a covering plate applied to said bleed-duct at the junction of said sections and having a bleed-hole, said covering plate being carried by said other section, and a connecting passage in the first named section extending from said transverse cleaning passage to said bleed-hole.

6. A tracker-board comprising separable sections and having a main or note-duct and a bleed-duct connected with said note-duct, and a plate removably arranged at the junction of said sections and having a bleed-hole which communicates with said bleed-duct.

Witness our hands this 22d day of April, 1911.

AUGUST PHILIPPS.
OSWALD PHILIPPS.

Witnesses.
JEAN GRUND,
CARL GRUND.