Aug. 30, 1932. C. E. GRANT 1,875,234

ORGAN COUPLER

Filed June 3, 1931

Fig. 1.

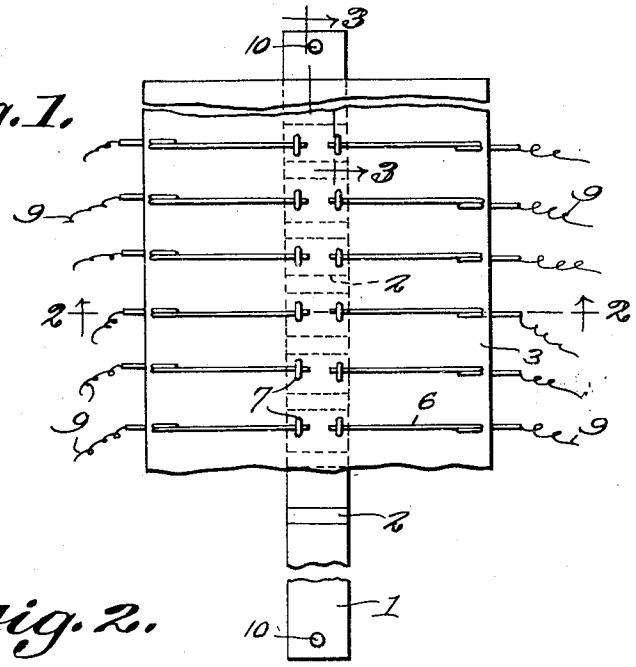
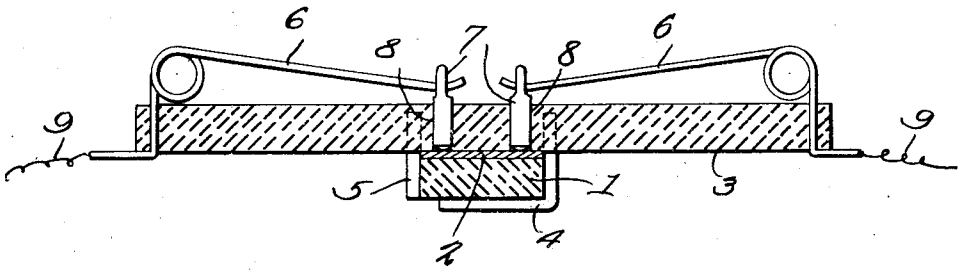


Fig. 2.



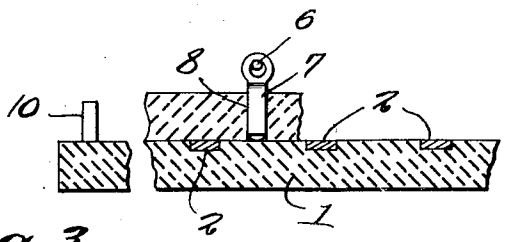


Fig. 3.

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Patented Aug. 30, 1932 1,875,234

UNITED STATES PATENT OFFICE

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ORGAN COUPLER

Application filed June 3, 1931. Serial No. 541,897.

This invention relates to a multiple switch designed primarily for use as a coupler for electrically controlled organs whereby selected electric circuits can be coupled to the keys of a manual to sound the elements of a desired stop.

A further object is to provide a coupler of this type which is simple and compact, will not readily get out of order and can be more cheaply manufactured and installed than other devices used for similar purposes.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawing the preferred form of the invention has been shown.

In said drawing:

Figure 1 is a plan view of a portion of the coupler.

Figure 2 is an enlarged section on line 2—2, Figure 1.

Figure 3 is an enlarged section on line 3—3, Figure 1.

Referring to the figures by characters of reference 1 designates an elongated strip of insulating material in one face of which are embedded regularly spaced contact plates 2 extending transversely of the strip. This strip constitutes a slide which is supported in any suitable manner in sliding contact with a body strip or panel 3 also formed of insulating material. For example, angular supporting fingers 4 can extend from the panel to form rests for strip 1 and retaining pins 5 can cooperate therewith to guide the strip during the sliding movement.

Opposed series of springs 6 are fastened to panel 3 and are arranged in pairs close together, the springs of each pair being extended toward each other. Each spring has a free end which extends loosely into and contacts with a contact pin 7 and each pin is slidable freely in an opening 8 provided therefor in panel 3. The pins are also arranged in pairs. The pins of each pair are so located as to be simultaneously engaged by one of the contact strips 2 when the slide is shifted in one direction. The free ends of the pins are rounded as at 9 so as to ride easily onto and off their contact strips.

Conductors 9 forming one side of an electric circuit are connected to the springs of each pair. Each circuit is controlled by one of the keys of a manual.

The contacts 2 are so located than when the slide 1 is moved to one extreme position determined by a stop 10, all of them or a selected number will move under and form electrical contacts with the pins 7 associated therewith. Thus the broken side of each key controlled circuit will be closed and by actuation of its key a circuit will be established to the action of the selected pipe or other sounding element.

It is to be understood that where sixty-one keys are provided in a manual or any other number of keys are employed, the number of contacts 2 in slide 1 will equal the number of keys. Thus all of the keys of the manual can be used to close the respective circuits leading to the elements of the selected stop.

One of these couplers is to be provided for each stop of the instrument and, because of the compact construction, a number of couplers can be placed in a comparatively small space.

It is to be understood that the pairs of springs can be arranged as close together as possible without contacting.

Obviously any number of pipes from one stop can be taken off through a coupler of the same number of contacts used in other positions, such as on a pedal keyboard or a second console.

The contact pins are self seating and self cleaning because of their rounded ends and the movement of the slide relative thereto.

What is claimed is:

An organ coupler including a panel, a plurality of opposed springs fixedly secured thereon arranged in pairs, each pair being provided in one side of an electric circuit, contact pins carried by and detachably sup-

ported by the springs, said pins being arranged in pairs and slidable in the panel, there being an opening in each pin into which its supporting spring projects loosely, a slide, and contacts carried by the slide and movable simultaneously into or out of engagement with the pins of the respective pairs, each pin having a rounded end for sliding engagement with the slide and one of its contacts.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CASPER ELDRED GRANT.