

# FROM THE WORK-BENCH

by Allen Miller



## Quick Disconnect Winding

Occasionally there is a situation in which it is necessary to make a wind connection where parts must be disconnected often or quickly, or the area of connection is "blind" or otherwise inaccessible and conventional wind connections just won't work.

Robert-Morton used a type of wind connection which was extremely simple and very effective. They were used primarily in winding adjacent chests without resorting to manifolds, and interconnection of "blow boxes" within the console in such a manner that raising the upper half of the console required no flex lines. While the applications may not have been ideal, the design of the wind seal was very clever.

I have always known of this winding method as "kissing flaps," which may not be correct, but is certainly descriptive. To explain how it works, I will describe how kissing flaps were used to connect two adjacent chests.

To work properly, there must be a space between the chests. As little as 1/4" seems to work. The mating chests are usually spaced mechanically so that they cannot be pushed together completely. Each chest is bored with a hole for the obvious wind conveyance. While usually round, any shape will work. A single piece of soft leather, such as that used on gussets or valves, is cut larger than the hole by about an inch all around, and glued in place at the edges only. The flap, which now seems like a loose gasket, is provided with a hole

which is smaller than the hole in the chest by perhaps 1/2". In theory, the hole does not have to be smaller, but most examples seem to be that way.

In operation, the kissing flaps are opposite each other with a slight space between. *They are not glued or fastened together!* When the wind is turned on, air obviously attempts to escape from between the two flaps. The combination of this, and the pressure of the air against the inside of the flaps causes them to balloon together until they touch or "kiss," thus sealing off the air leak. The greater the pressure, the tighter the seal. In actuality, once this has occurred, the flaps remain touching

lightly and seal instantly when the wind is turned on.

The flaps must be soft and have an even surface to seal well. If the leather becomes stiff, the joint may actually produce a kissing sound, or even much nastier "cheers," especially when the organ is turned off. Fortunately, these side effects are not normally produced.

I have found that it is not really necessary to have two sets of mating flaps, as long as one can kiss against a flat surface and the distance is controlled. I have used this system on console wind disconnects and it is very simple and easy to use. The installation of the Thomaston, Connec-

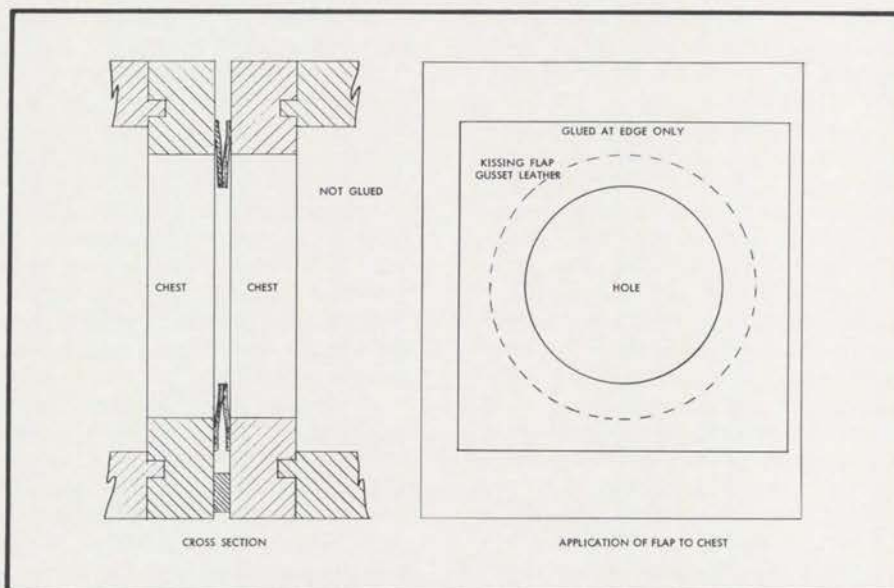


Figure 1.

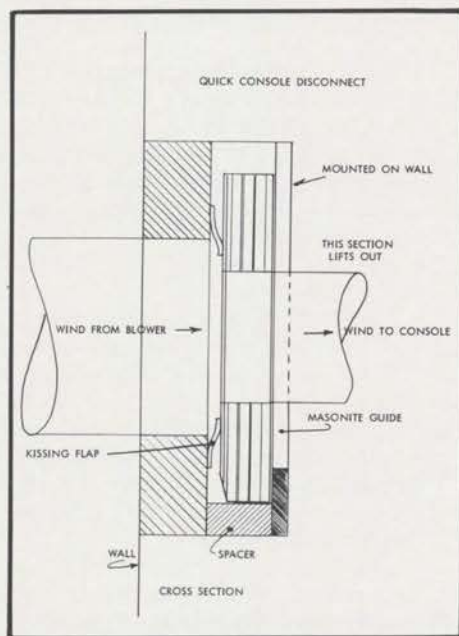


Figure 2.

ticut, Opera House 3/15 Marr & Colton has used this device for nearly 15 years as a console disconnect with two console locations or outlets. Only the fixed "outlets" have the leather flaps. The mating flat surfaces on the console flex connector and the blank "dummy" board which seals the unused outlet, are faced with counter top laminate to withstand abuse. There are no screws or fastenings. The console wind connector merely slides into place in the outlet being used, and the dummy slides into the unused outlet. Changeover can be made with the wind "on," but it is preferable to shut the blower down during the operation.

This system has also been used successfully to join sections of a moveable pipe organ. It is a worthwhile device, and just might be useful in a situation you have in mind. □