

Case study
The restoration
of the
1755 John Snetzler Organ
at
Clare College Cambridge

Wind System

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Bellows

On dismantling of the organ, the bellows of the Snetzler were found to be a double-rise horizontal reservoir with two inward folds and a feeder.

Note the original waste valve



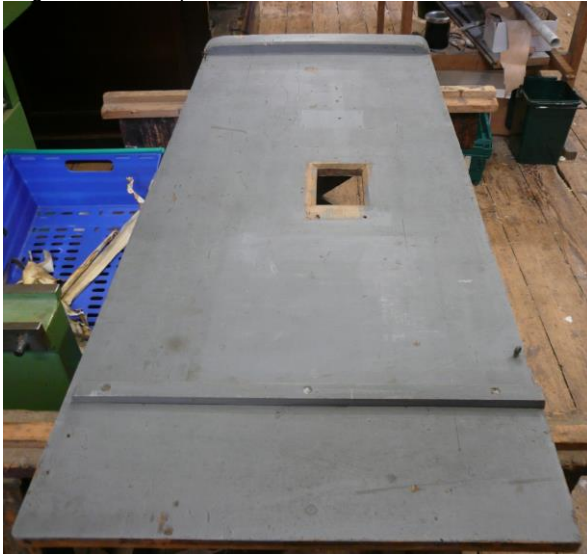
The support batten on the trunk side (treble) showed signs of having been fixed higher on the inside of the lower panel than it was now. The trunk had also been replaced with a new one.

Note the original place of fixing with unused screw holes



The original bellows were therefore most certainly of a diagonal type with a feeder. The dimensions of the lower board (valve board) are 1785 x 750 x 26.5. The top leaf of the horizontal reservoir was 1420 x 610. The bellows were completely dismantled in order to be re-leathered. During this process the following discoveries were made.

Original Bellows top cut narrower and shorter



It became clear from the position of the waste valve and the rudimentary evidence of leather strap hinges (pieces of leather wedged into oblong pockets cut off flush with the wood surfaces), that the top leaf of the horizontal reservoir was the actual original top of the diagonal bellows. Because over 75% of the old components survived, albeit in altered condition, the decision was taken to reconstruct the bellows to their original shape. The trunk size which had been enlarged was reduced back to its original dimensions. (110 x 93)

Remains of the leather strap hinges wedged into the valve board. A hinge pocket cleaned out and a splinter of the hinge-slat



The leather straps (cow hide) and leatherned hinge-slat for the tail hinge of the reservoir (Note the reduced trunk outlet)



The corners of the old folds were found to be pencilled on the valve board (only just visible under the red size). Their original width dimensions were found to be 225 – 25 with a thickness of 8mm. Second hand pine from the folds of the horizontal reservoir was used. The relatively modern grey paint was stripped off.

The old reservoir top leaf was extended to its original size of 1510 x 710.

Reconstructed folds leathered onto a widened and lengthened bellows top



Finished bellows



The feeder had been reduced in width by 30mm at the front (This is can be deduced from asymmetry). This was perhaps done to accommodate mechanism in its lower horizontal position. The Feeder has not been widened to its original width as it was found to be of ample capacity.

The blower, which is positioned on the treble side next to the organ, has been retained. The wind is regulated by means of a steel Guillotine which was present

before the restoration. The blower wind enters the case through the same hole in the back of the case as it did before the restoration, though now under the high side of the valve board instead of above it in its horizontal position.

Previously the wind was plumbed straight into the trunk of the organ, whereas now, it feeds into the feeder through an intake-valve hole.

The restored bellows re-installed in the organ



The wind characteristics are as one can expect from an organ of this size and pedigree. The wind is lively but smooth and enhances the sound in a musically pleasing way.