UNION CONGREGATIONAL CHURCH, U.C.C., HANCOCK, MAINE

Pipe Organ Restoration Records – Photo-documentation from 2019,
also supporting the work proposal for summer 2020

from MESSRS. CZELUSNIAK ET DUGAL, INC.
Organbuilders: Restoration & Maintenance
Northampton, Massachusetts

Hook & Hastings Organ Co., Kendal Green, Mass., Opus 2577, 1929, 2 manuals, 7 ranks, fully Unit Electro-Pneumatic actions, now with Peterson solid-state drive, original setterboard combination action; built for the Bangor Conservatory; relocated to Bar Harbor, then Schoodic; saved by Stoddard Smith and Phil Devenish as relocated and rebuilt here in 1988, with additional tonal work by Ed Mickey in 1992

The general setting of the pipe chamber in the rear organ loft, prior to the start of work in the summer of 2019

The order of pipework, from front (expression shades) to the rear (service passage) is: Open Diapason 8' (73 pipes); Voix Celeste 8' (49 pipes); Stopped Diapason 8' (73 pipes); Principal 4' (73 pipes); Dolce 8' (61 pipes); Quint 1-1/3' (49 pipes); Oboe 8' (61 pipes); the Bourdon 16' (12 pipes, bottom-octave extension of the Stopped Diapason) stand on their own chests on the floor at the very rear of this chamber (outside of the image, to the right).

Being of unit-action windchest construction, each pipe in the organ has its own electro-magnet and its own pneumatic valve "motor", which are housed above and accessed by (respectively) the bottom-boards of the windchests (one Ventil box, as we call them, for each unit rank). In the image below, you will see four of the seven bottom-boards under this main windchest assembly. Each brass nipple is the exhaust port and armature adjustment for the individual electro-magnets inside; the Direct-Current signal wiring for each note is apparent in the color-coded cable. The wind pipe to the right connects to the Tremolo accessory; and, the Open Diapason bass pipes are tubed off to stand on the floor at the rear of the image. This picture illustrates many of the parts that are described for specific treatment in our work records, elaborated herein, and as will be in the forthcoming restoration proposal, also.

... *but* ... There were many problems to be cleaned up during the first phase of restoration, summer 2019!

Upon disassembly of the first two unit stops (Open Diapason and Voix Celeste), for thorough restoration at our shop in Northampton, Mass., the condition of the organ in the chamber looked like this. The pipes to the left, which are leaning, were not in that position from having been bumped during work, but rather because they had been lifted from their toe-holes, to mute their speech, as a result of ciphers (constant and uncontrolled wind flow) caused by internal damage from water intrusion. The woodwork simply is aged, if a bit dirty as well.

Thorough restoration work in several categories was executed efficiently and economically with the resources at hand in our shop. The work steps found necessary, and then provided for best reliability and durability of the investment, are represented in the following images. These categories of work explain prior efforts and costs, as well as those equivalent steps proposed for the next unit stops from Hancock to be restored soon in Northampton.

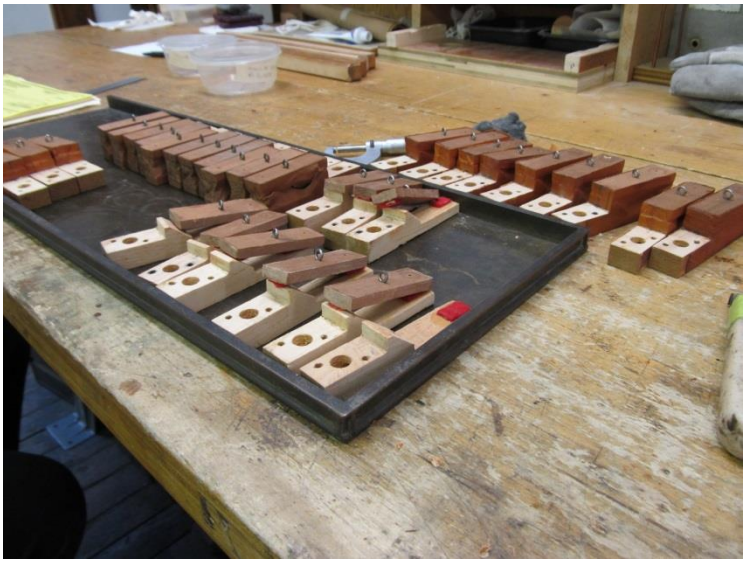
The Ventil Boxes, or windchest bodies... this first image shows interior water damage:

Here being stripped, cleaned, and sanded:

New leather gasketing was applied to the perimeters of the windchest frames, punched to permit transmission of both pneumatic signals and speaking wind pressure to the pipes above. Most importantly, a new (red) rubbercloth membrane was applied to the tops of the Ventil boxes, glued around the wind holes, as a certain preventative of spurious leakage and ciphers, in the long term.

The interior **Note-Action Motors** suffered also from the water intrusion; each of these units was dismounted, tested under pressure, releathered as necessary, and ultimately remounted securely inside the respective Ventil boxes. However, every single action motor received a fresh leather mounting gasket and a new valve face. As initially dismounted, and during testing, these pneumatic actions looked like this:

As the renovation treatment proceeded, some valve motors were releathered completely, where necessary, here disassembled, cleaned, and awaiting new coverings...



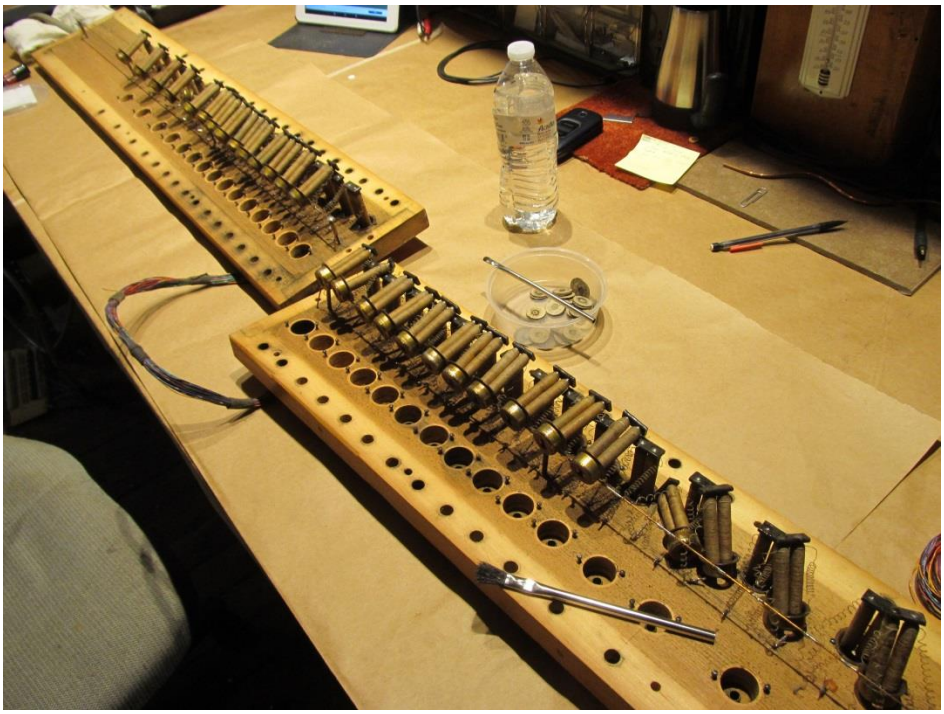
... and receiving new mounting gaskets throughout ...

... to receiving new valve faces throughout ... here prepared, at least!

...until all valve-action motors, for all notes, in all stops [contracted] were certifiable, again...

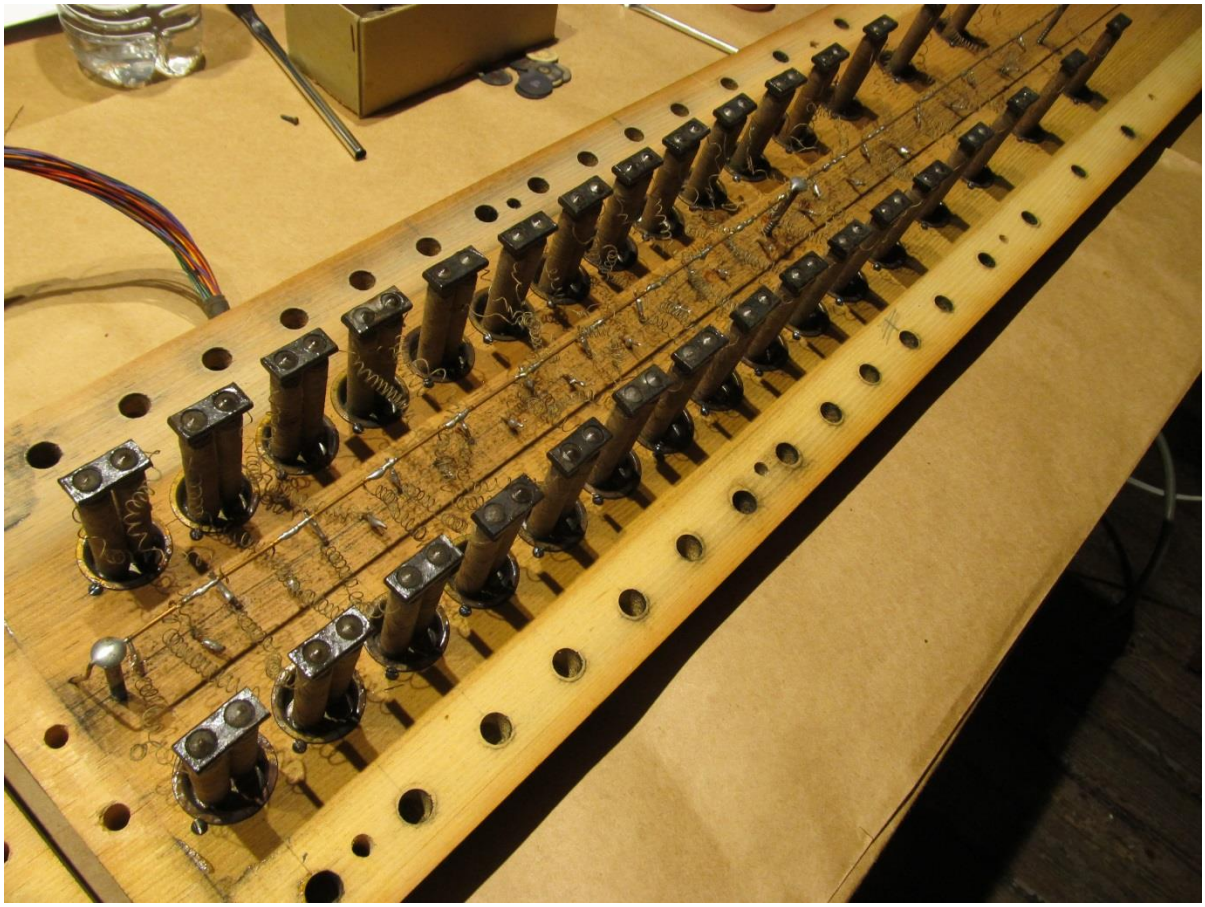
... and then were remounted inside the respective Ventil boxes.

The Bottom-boards of the Ventil boxes had to be treated delicately because of the aged, proprietary magnets and their light-gauge wiring, but yet to clean thoroughly the ports, seats, and armatures for reliable playing responsiveness. The process began by lifting the magnets and armatures from their seats in the bottom-boards:

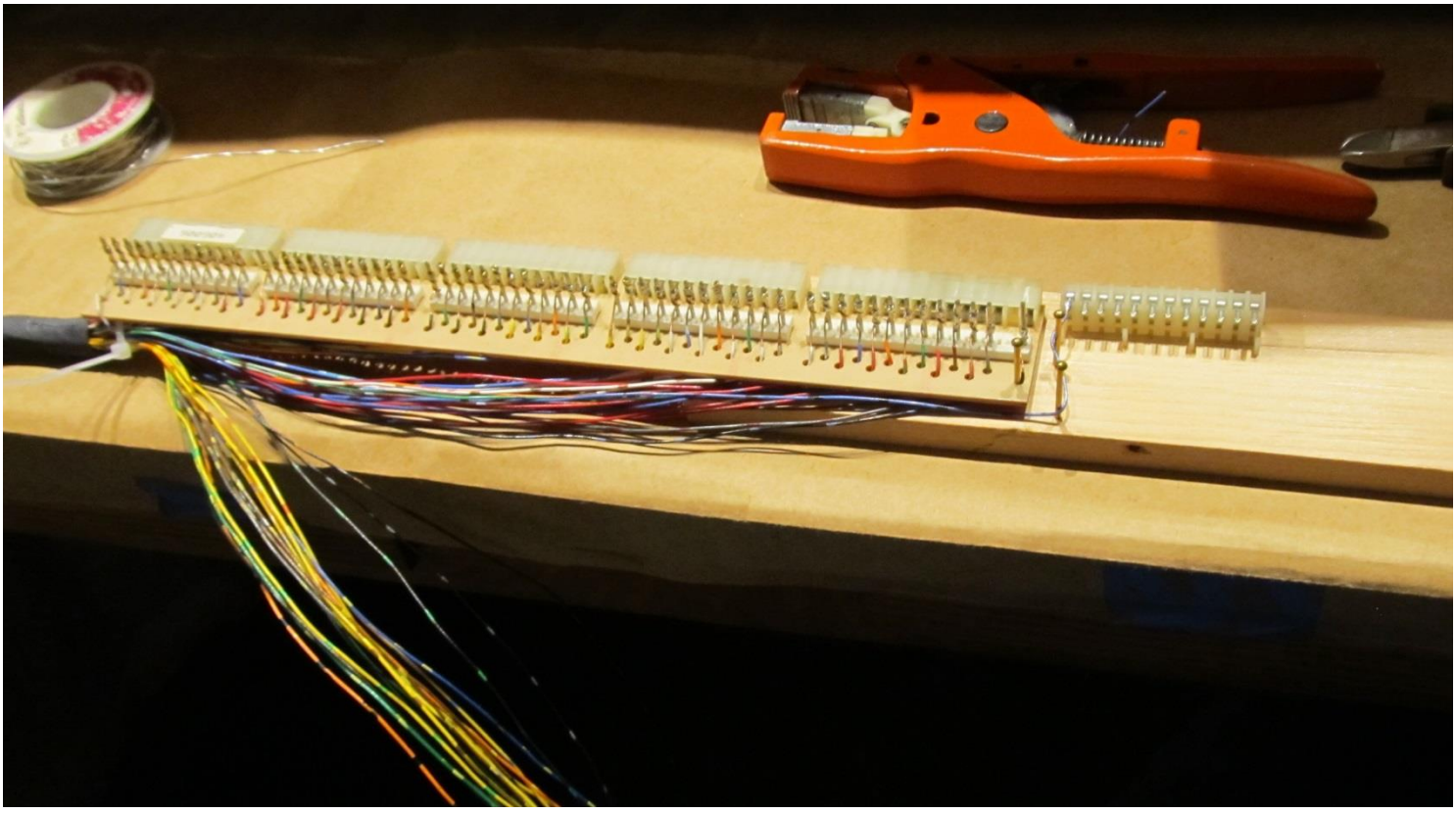


Closer details of the same work:

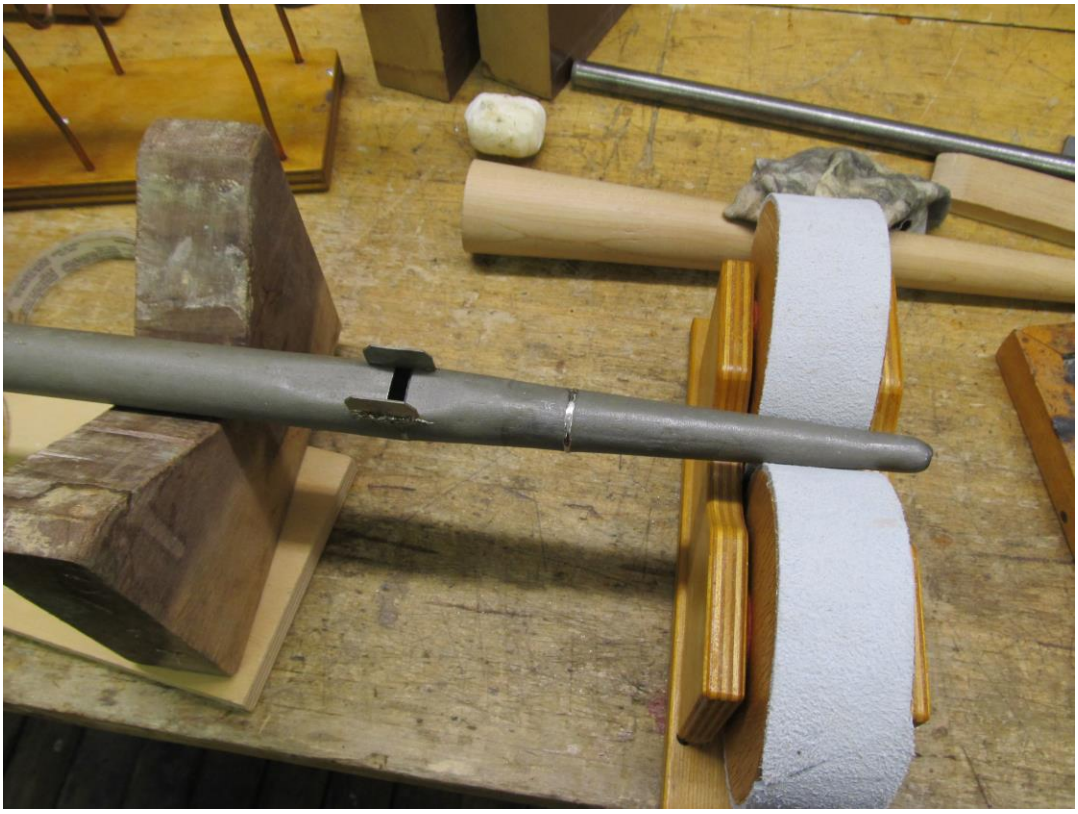
Then, full reassembly after cleaning, as much as space allowed access to the wood surface:



The electrical cabling to all chest magnets was corrected where necessary, dressed, and bench-tested.



The Pipework needed treatment, as well. Some Diapason pipes had been damaged by rodents chewing on the metal at the mouths, and hence would not speak; those pipes were replaced. The Voix Celeste suffered some damage by denting, which was repaired in our own shop. All pipes were refitted to their racks, before leaving the shop, as in the following images.



After delivery back to Hancock, Maine, chamber cleaning work preceded reinstallation, reassembly, and reactivation of the pipe organ – of the parts removed temporarily for shop restoration. In this first image, the expression shades have been removed temporarily to permit loading organ components into the chamber. The largest bass pipes of the Open Diapason unit have been reinstalled, offset on the floor of the chamber; note the new, red, internal slide tuners on these large zinc pipes. The structure is ready for placement of the two Ventil boxes restored, while the Stopped Diapason pipes to the left remain askew, muting continual ciphers until restoration is effected there.

The restored and refinished Ventil boxes for the Open Diapason and Voix Celeste units are reinstalled on the chassis structure of the organ in the rear-loft chamber. The three light-colored wooden blocks at the end of the first box are the sockets for flexible tubing that will carry the speaking wind from the chest valves to the offset bass pipes standing on the floor in the front corner of this chamber. The Tremolo accessory device sits on the floor (lower left of image), awaiting reconnection to its wind pipe.

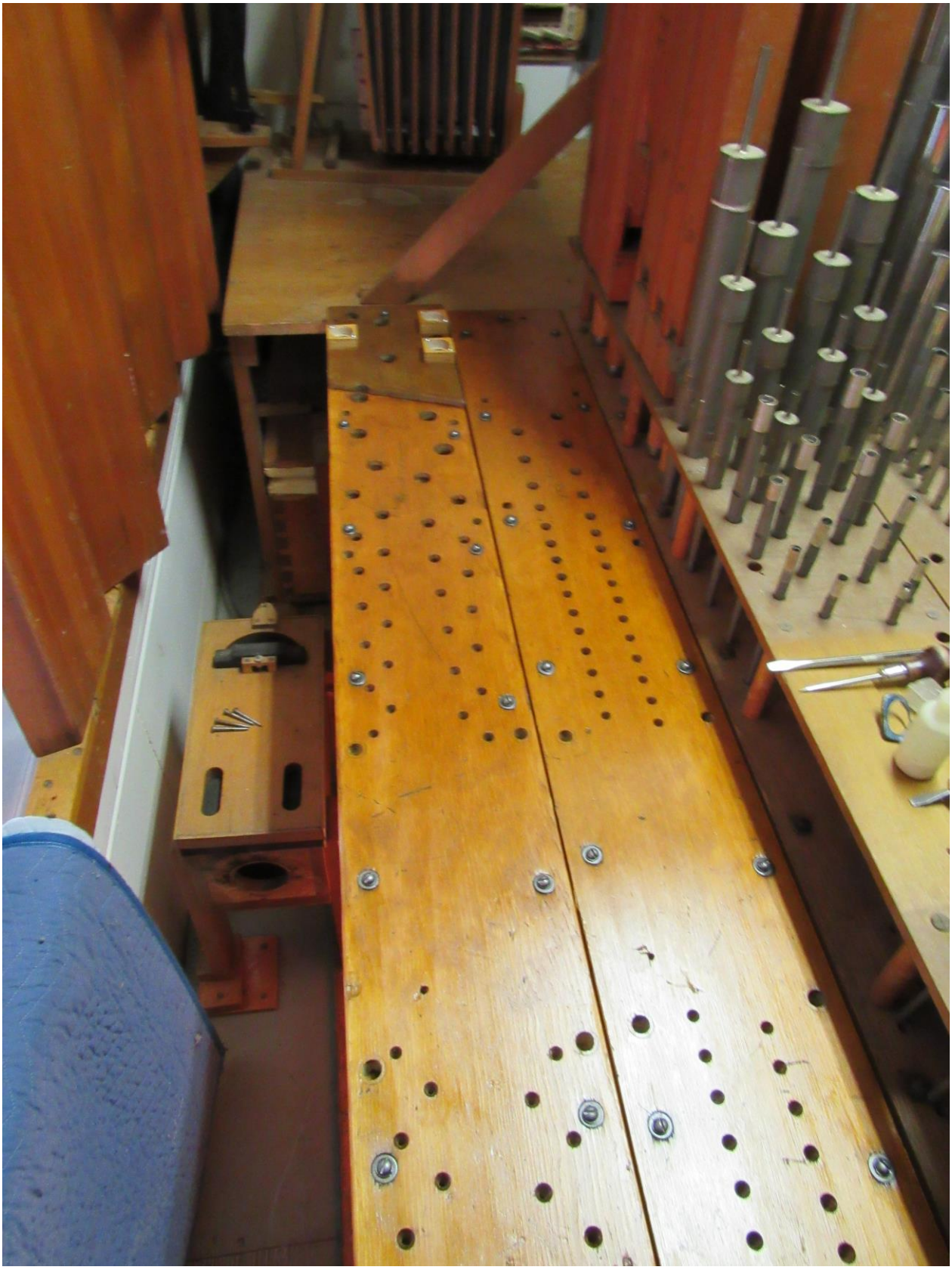
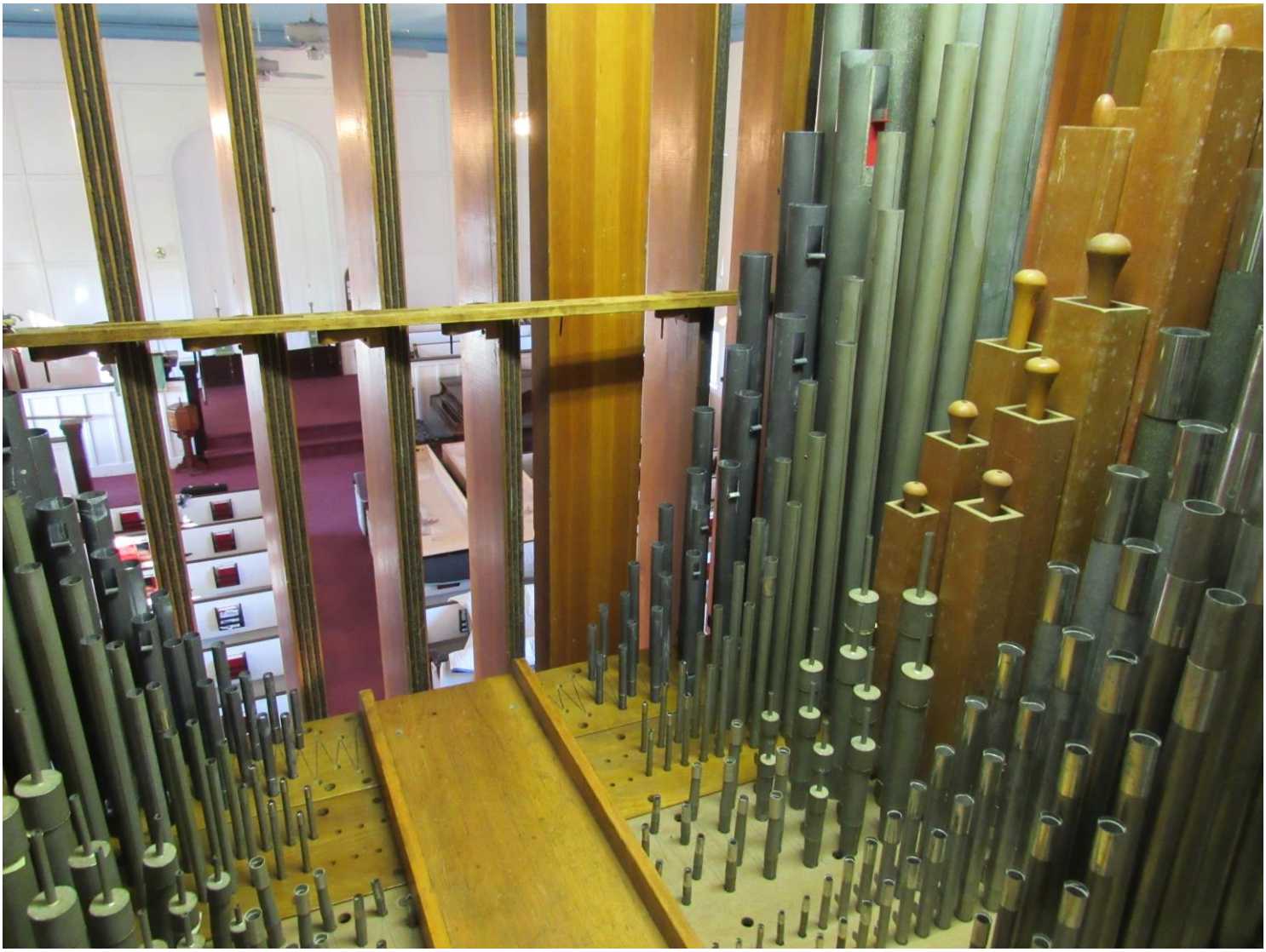


Photo-documentation at the completion of work in September 2019 – restoration of two unit stops, Open Diapason and Voix Celeste ranks, at the front of the main windchest in the organ chamber. You can compare this view to that shown in the very first image at the start of this presentation... almost exactly the same shot, but certainly a "before-and-after" scenario, with clear improvements.



Soon to be submitted, under separate cover, will be our comprehensive proposal for the restoration of the next three unit stops on this main windchest – the Stopped Diapason 8-4', the Principal 4-2', and the Dolce 8'. It seems most efficient to us, and most effective for your Church, that these three stops be treated simultaneously, in terms of both maximum remediation of the worst remaining water damage (ciphering and absent notes), and minimum disturbance to the chest and chamber for work access. Authorizing the next three stops in one subsequent work phase will leave only the Quint and Oboe stops, standing at the very rear of the main windchest structure, to be dealt with at a later date, and "most easily so" by virtue of their placement. So... more details to follow soon!

~ ~ End Of Record ~ ~

Tuesday, July 7, 2020