

3.11 A deluxe O'Mealy set of pipes.

Bill Haneman

Thanks to the generosity of its current custodian, Trevor Stewart, I recently had the opportunity to closely examine a nearly pristine full set made by R. L. O'Mealy. The set shares many characteristics of the best 19th century sets, and it exhibits numerous features reminiscent of the work of Coyne and Taylor. It is executed in ebony, nickel silver, and elephant ivory, and is pitched very near modern C#, a pitch typical of much of O'Mealy's output.



The O'Mealy set.

The set is a magnificent and beautifully preserved example of R. L. O'Mealy's work. In every detail it speaks of the confident hand of a pipemaker in his prime; toneholes are round and free from apparent adjustment or extreme undercutting. The decorative aspects are consistent and well formed, with clean curves and symmetrical beads. Complex constructions are executed cleanly and with an apparent central regard for the internal acoustic characteristics of the instrument.

The date of the set's manufacture is not known; it was reportedly obtained from Smithfield market in Belfast by the Rev. William James Guy Macbeth in about the 1930's, from whence it passed to an elder in the church, then back to Smithfield where it was purchased by the late Jim MacIntosh (see 3.23, "Rev. William James Guy Macbeth"). O'Mealy's compromised health in his later years would suggest a pre-1940 date; the confident and mature execution, even in the context of other O'Mealy examples, suggests that the set was made in mid-life.

It is a peculiar feature of R. L. O'Mealy's pipemaking that although most sets feature three regulators, they are not the familiar tenor, baritone, and bass; instead they are baritone, bass, and contrabass, the contrabass occupying the place usually occupied by the tenor. This set is no exception.

The contrabass regulator

Unlike the bass regulator, the contrabass regulator's reed tenon fits directly into the mainstock. The socket and tenon occupy the place usually associated with the tenor regulator. This first 'joint' of the regulator has a narrow throat – less than 3.3 mm, and a bore whose approximate cone angle and profile is similar to that of the chanter and baritone regulator. The regulator bore then doubles back via an “H shaped” connector, constructed of nickel silver, in which each section is slightly tapered, retaining the approximate cone angle of the bore. The bore continues in a timber section which, due to the considerable length of the overall air column, expands to a remarkable 25 mm. This timber bore is capped somewhat unusually, with an ivory plug which fits inside its end rather than a cap which fits over it. The joints between these sections are secured with thread wrapping and form an airtight but adjustable fit. The toneholes are remarkably large, on the order of the bore diameter, and are quite round. No undercutting was evident (though the keys were not removed, making the diameter measurements somewhat uncertain).

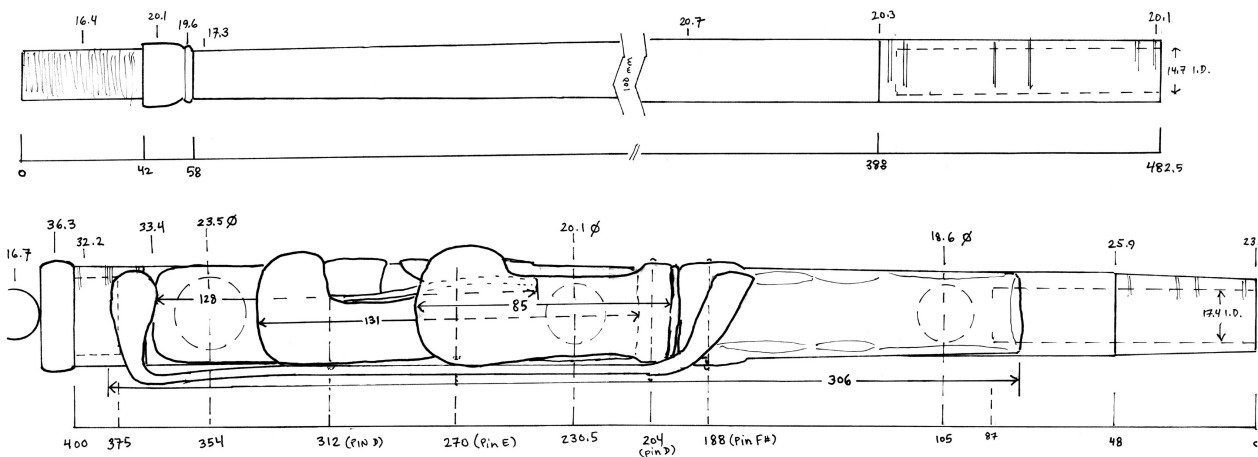
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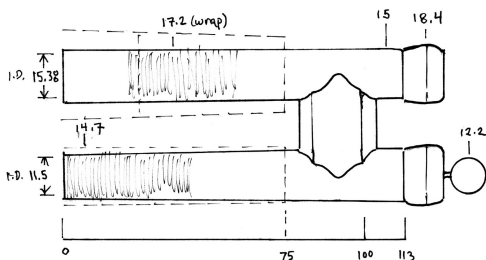
The keys on the contrabass regulator, like those on the bass and baritone, are slightly convex on their upper faces, but unlike the work of the Taylor brothers, there is no evidence of peening on the reverse faces. The convexity seems to be the result of folding followed by slight rounding or polishing of the edges of the robust nickel silver sheet from which the keys were cut. The thickness of the nickel sheet was not measured on this occasion but I estimate to be approximately 1.5 mm.



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CONTRABASS REGULATOR - R. L. O' MEALY



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The reverse-acting D key arrangement appears identical to that of the Taylors as described by David Quinn in SRS Journal Vol. II¹.

Bass regulator

The bass regulator is of a more-or-less standard “Tayloresque” configuration; that is, the bass bar attaches to the solid mainstock in the usual manner, with flat “tongue depressor” style keys and a “folded back” reed seat section. The timber, key-bearing section of the regulator attaches to the rest via a socket which fits over a tubular metal tenon on the bass bar. The inner diameter of this tenon is approximately conical and forms part of the regulator bore. The reed end of the regulator has the “folded” configuration – i.e. the reed seat lies in a short timber section which attaches to a metal U-bend, itself slightly tapered, such that the regulator bore is “folded” near the bag-side connection point between mainstock and bar.



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Bass regulator 'turnaround'

One slightly unusual feature of the bass regulator is the nature of the bore section between the U-bend and the socketed timber joint. Much of the bore seems to be constructed of several sections of metal tubing, rolled from sheet and with an appropriate taper similar to that of the other regulators. These sections are connected in various ways; the means of connection between the U-bend (nickel silver) to the inner brass section which follows it (see photo left) could not be determined as those joints were not dismantled. These sections form part of an “H-shaped” component which is attached to the bass bar, inside and out, via an adjustable sliding fit. Consider the “arms” of the H; the reed seat arm contains a short timber section around which air flows via six flutes, in the manner of conventional “straight” bass bar inner bores. The “crossbar” of the H is sturdy and wide. The opposite arm of the H consists of two nested, concentric, tubes; the outer tube nests snugly inside the exterior tube of the bass bar, and is rendered airtight with thread wrapping. Its sliding fit allows the “folded back” section of the regulator to be rotated so that the reed seat and reed cap lie to either side of the bass bar – either above it, near the top of the mainstock; or below it, away from the player. It is not clear if one configuration was preferred by O’Mealy,

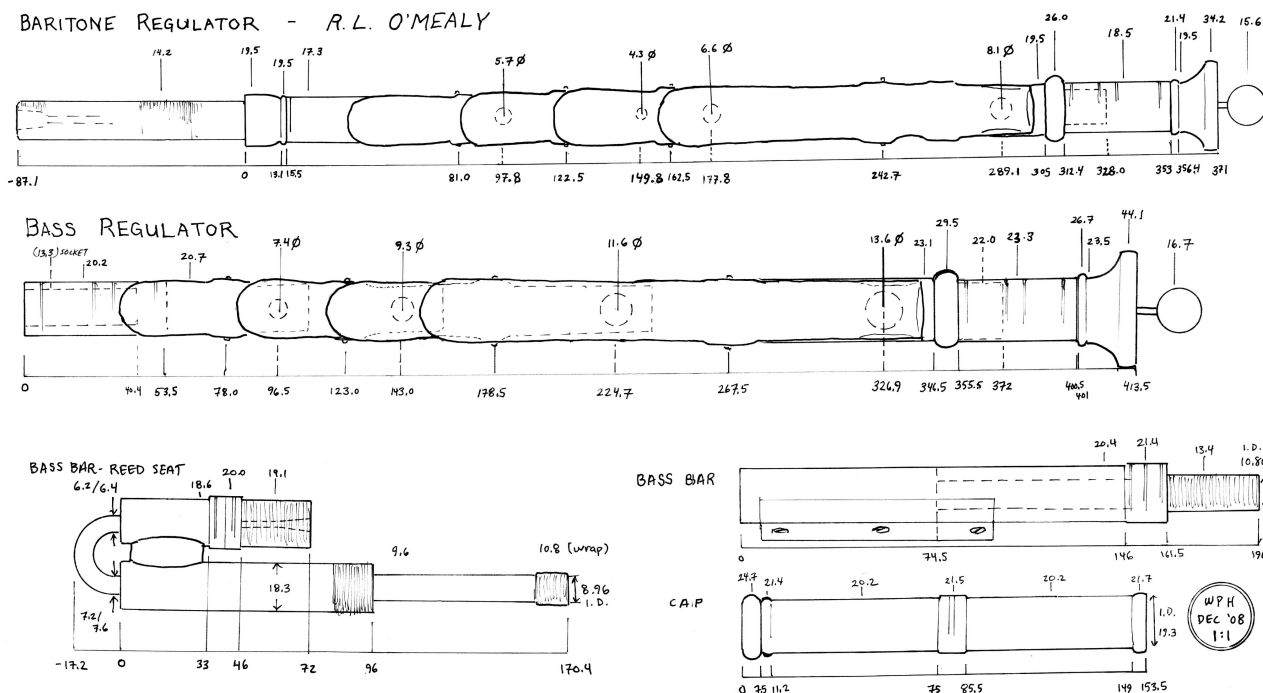
though surviving photographs seem to show it near the top of the stock.

The inner of the two metal tubes on this arm of the H forms the bore proper, and is considerably longer than the outer. The air thus flows freely around the inner metal tube, obviating the need for a fluted wooden inside joint. The end of this bore tube is thread wrapped and fits into an otherwise solid wooden joint at the outboard end of the bass bar, just before the aforementioned outboard tenon. It is not known



¹ D. M. Quinn, "Passionate Industry", *The Seán Reid Society Journal*, Vol. 2, Article 2.09, March 2002.

whether the section of the bore from the metal tenon to the U bend is entirely metal, directly



abutting the inserted interior tube, or contains a short section of timber; however the dimensions of the bore were measured.

The outboard tenon-and-socket arrangement was typical of 19th century bass regulators, having been used by the Taylor brothers, Coyne, Egan, and Harrington among others.

Baritone Regulator

The baritone regulator's construction and appearance closely resembles the work of the Taylor brothers. It differs primarily in the means of attachment of the regulator keys. The Taylors attached the keys via pins which lay above the roughly flat-topped regulator bodies, and below the keys themselves, which were formed from sheet metal with “tabs” folded downwards. These Taylor pins passed through metal tabs which might be described as “ears”, which were dovetailed (sometimes doubly) into the timber and secured with rivets. In contrast, the O'Mealy key pins pass through the timber of the regulator bodies, and no dovetailed metal “ears” are present. The O'Mealy key seats are angled, possibly in order to allow the lower position of the pins – both of these features are clearly visible on the bass regulator as well (right). The pins extend slightly proud of the keys, with an oversized “head” on one end, which helps secure them in position. Another slight modification to the Taylor design is that the longer keys are stabilised against side-to-side play by tabs which are bent down around the timber, rather than by small, non-pin-bearing “ears” as in Taylor examples.



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One feature of the toneholes which is shared by the bass regulator is their marked nonuniformity in

size. The largest toneholes are quite large, whereas in cases where the hole is placed relatively near the reed as a result of space constraints between blocks, the toneholes are much smaller. This is a characteristic observable in some Taylor work as well, but not evident in pristine surviving Coyne sets. (The toneholes on Coyne regulators tend to be smaller, more uniform in size, and appear to depend strongly on stopped-end effects for their tuning; that is, the exact distance to the regulator end cap is critical to their tuning. Larger toneholes appear to be less susceptible to stopped-end effects, and thus tuning depends on relative tonehole size and placement relative to the reed seat; of course larger toneholes also tend to make for a louder regulator.)

It is common to find that the baritone regulator's bore is extremely similar to that of the chanter. While the O'Mealy baritone bore is broadly similar to that of the chanter, and there is evidence that the same tools may have been used to make both, there are notable differences. The baritone regulator's throat is markedly smaller than that of the chanter – about 3.3 mm, and the upper bore is

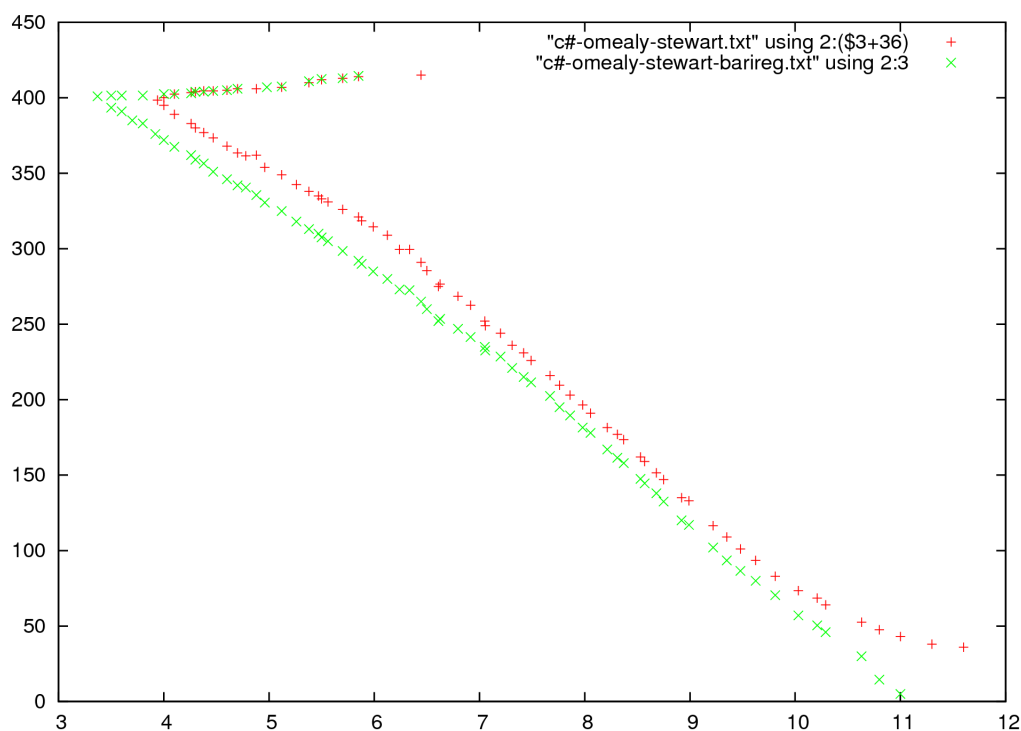


Illustration 1: comparison of chanter and regulator bores, aligned at reed seat

smaller overall. The differences are not consistent with the use of a single full-length reamer, inserted to different depths; instead, they suggest that either different reamers were used for the two bores, or, more likely, a set of reamers was differently utilised, with the 'throat' reamer of up to about 6.5 mm diameter being inserted deeper relative to the 'body' reamer in the case of the chanter than in the case of the regulator (below).

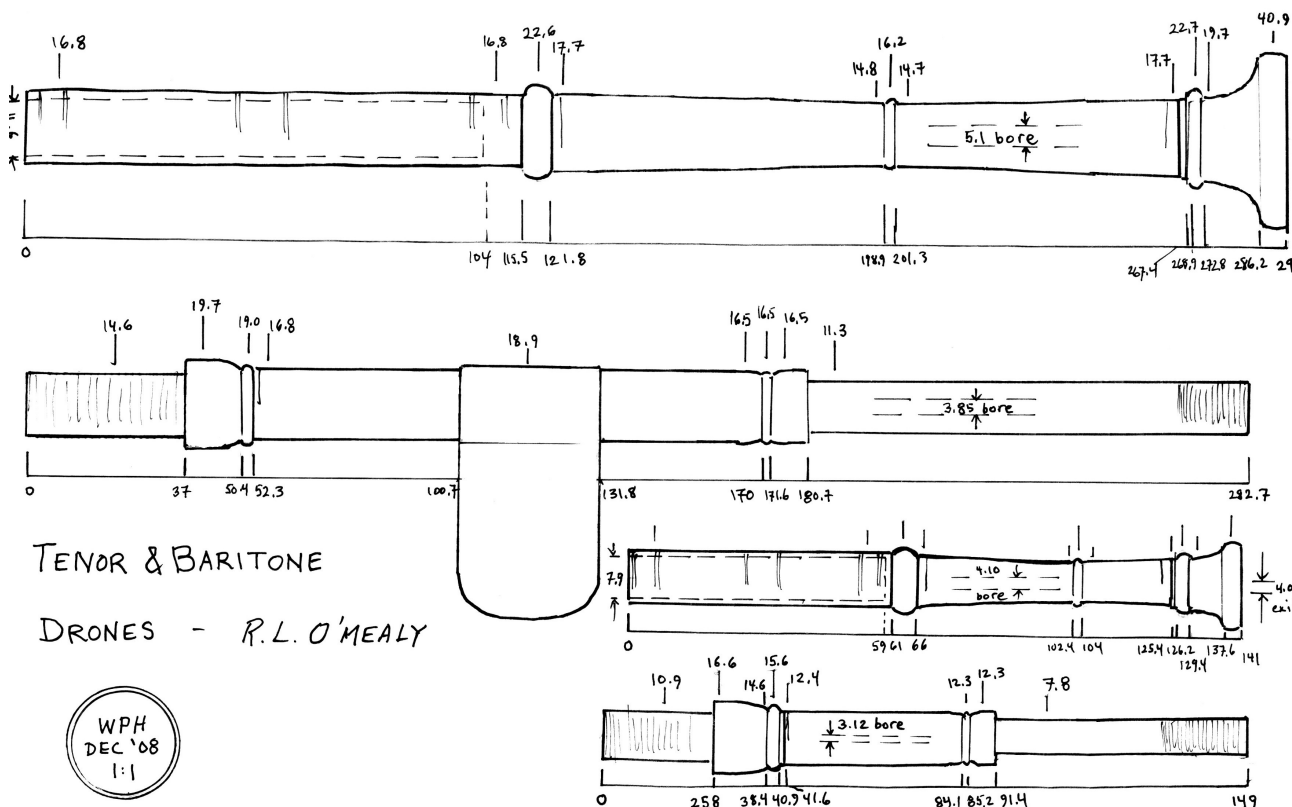
The Drones

The tenor and baritone drones are reminiscent of the work of classic makers Coyne and Egan; the tenor seems intended to play the tonic (as opposed to the fourth, 'A', as on some early classic sets). Bores are relatively small, and the slide joint's bore is slightly larger than the reed tenon joint. The slides have wooden sockets whose diameters are approximately the same as those of Coyne. There are no evident "chambers" in the end caps, but the exits are slightly restricted relative to the slide bores. Decorative aspects are similar to the work of Coyne, but unusual in that ivory mounts are present at the reed tenon ends but integral mounts are present at the slide tenon end.

The tenor drone is located beneath the contrabass regulator, and is rather difficult to reach. The end cap can be reached, and a previous owner has attached a piece of leather to the ferrule to offer another means of reaching the slide. The inboard joint has a bore of approximately 3.12 mm; the slide has a 7.9 by 59 mm socket and a bore of 4.10 mm. The cap exit measures 4.02 mm.



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The baritone drone first (or 'standing') joint bears a heavy-duty bracket which helps stabilize the outboard joint of the contrabass regulator. Its bore measures between 3.8 and 3.9 mm. The slide joint has a 11.6 by 104 mm socket, and a slightly tapered bore with a minimum diameter of 5.2 mm and a maximum diameter of about 5.5 mm. The cap exit measures 6.3 mm diameter.



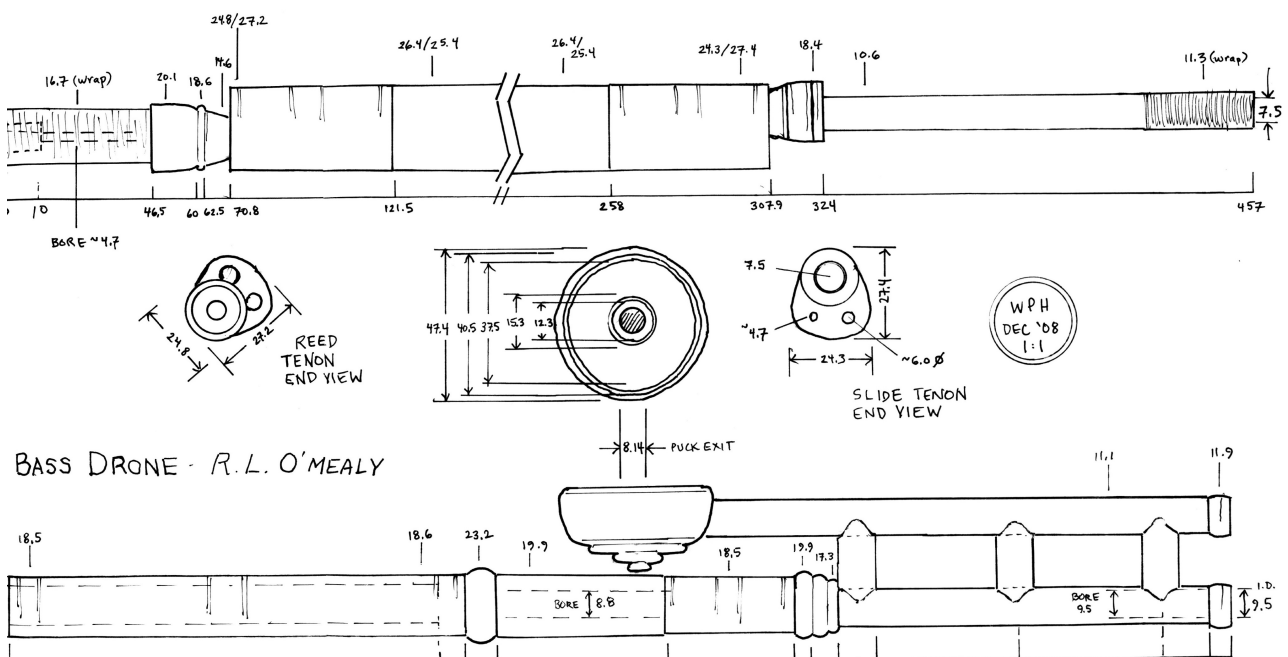
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The bass drone, on the other hand, is much like the work of the Taylors. Rather than three joints connected via U-bends, the first portion of the bore consists of three bores executed in a single piece of timber. These three bore sections are connected via short 'cross bores' which are, in turn, sealed beneath relatively long metal ferrules. The "open" ends of the bores, where they are communicate via the cross bores, are plugged with small corks and waxed. The Taylor 'cross bores' appear to be

carved from the ends of the timber and subsequently plugged with elongated cork pieces, whereas the O'Mealy cross bores appear to have been drilled crosswise with a boring tool and covered with the ferrules. Another slight refinement of the Taylor approach is seen in the reed tenon itself, which

is inserted into the stock; the tenon itself is timber and appears to have been eccentrically turned integral to the rest of the inboard section of the drone. The drone's cross section is roughly a rounded triangle, and like that of the Taylors, the cross-section carries a subtle spiral twist {of course bores are straight, but may not be parallel}, perhaps to better align the reed and slide tenon geometry with the regulators and other drones. The drone bores are relatively narrow and graduated from small to large (4.7, approximately 6, and 7.5 mm); they are dimensionally similar to those of Coyne and some Taylor examples. (The actual diameter of the middle bore could not be directly measured; the cork at the outboard end was approximately 6.0 mm).

The slide tenon is formed of brass, which is clad over most of its length with nickel silver. Cladding is absent from the outboard section which holds the thread wrapping. The outboard mount is peculiar in being formed from 'stacked' rings of nickel and ebony; a pin or rivet appears to penetrate the mount laterally – as the mount was not disassembled or removed from the timber section, the function of the pin is not known.



The resemblance to the work of the Taylors continues with the bass drone slide, which has a ladder-like configuration with three rungs. The puck is not hollow, is quite ornate, and appears to have been turned from a billiard ball (see below). Interestingly, the outboard “plugs” in the ends of the ladder are not ivory, as in Taylor examples, but timber, perhaps in an attempt to make them more tolerant of blows and falls. The timber section of the slide has an 8.8 mm bore; the metal tubing sections have a bore of 9.5 mm. The bass drone exit measures 8.14 mm.

The drones are reeded with cane quills and have a rich tone with evident harmonics. The tenor drone is relatively loud for a narrow-bore set, possibly due to its having been originally made to play the tonic, rather than adapted after the fact. Tuning of the drones is quite stable and while not booming, the drones are fairly strong.

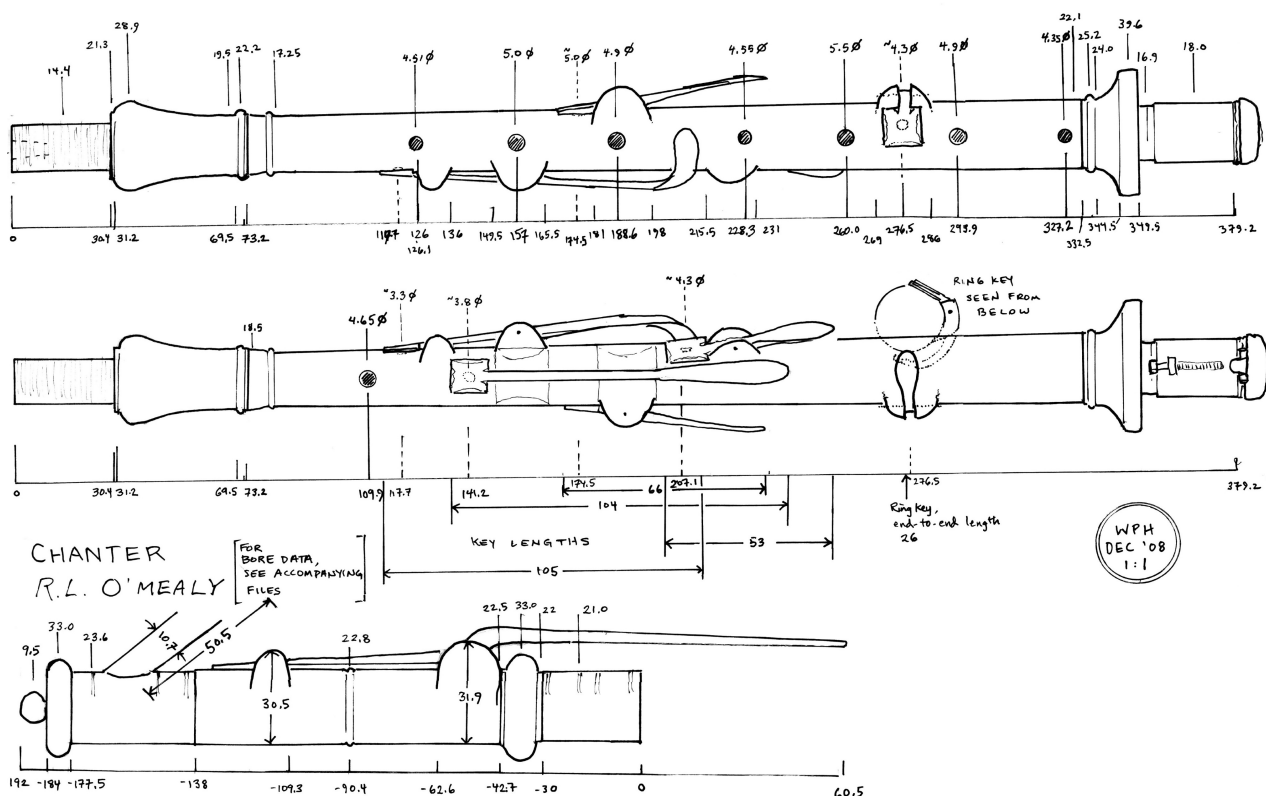


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The chanter

The chanter is finely executed from ebony, and at just over 379 mm is longer than concert D chanters but somewhat shorter than Coyne 'C#' chanters which range from approximately 389 – 393 mm. The throat is approximately 3.95 mm, and bell just over 11 mm, which is very narrow for a chanter of its period but similar to mid-19th-century examples. Toneholes are small and relatively uniform in size, generally between 4.5 and 5.0 mm. The largest tonehole, the F#, is just over 5.5 mm. All toneholes are relatively round and, while 'fraisé' inside and out (i. e. tonehole edges are rounded), do not display pronounced undercutting. The only evident undercutting is on the back d, which appears to have been undercut upwards. The noteworthy roundness of the toneholes suggests that the holes were confidently drilled to their final sizes in one step and were not significantly retuned during voicing. The chanter displays no 'scalloping' of the toneholes – other than the slight rounding of the tonehole outer edges, the chanter exterior takes the form of a smooth cone on its front face.

The chanter features a “high d” key, a C natural key, a B flat, a G sharp, and an F natural. The “high d” is somewhat larger than one might expect, and if used for a high C sharp in the manner



given by the Colclough fingering chart, appears quite sharp. The hole shows evidence of having been partially plugged with wax, in the past. The F natural key is quite unusual – it is a 'ring' type key, but the keypad is located at the front of the chanter and the key is actuated by the bottom hand thumb. All key touches with the exception of the high d are within reach of the thumb. Key pads are decorated with concave chamfers in the manner of Coyne, but without the diagonal punch marks characteristic of that maker. Chanter key shanks and slots are approximately 3.6 mm in width. The chanter cap features a stop key, whose mechanism consists of a



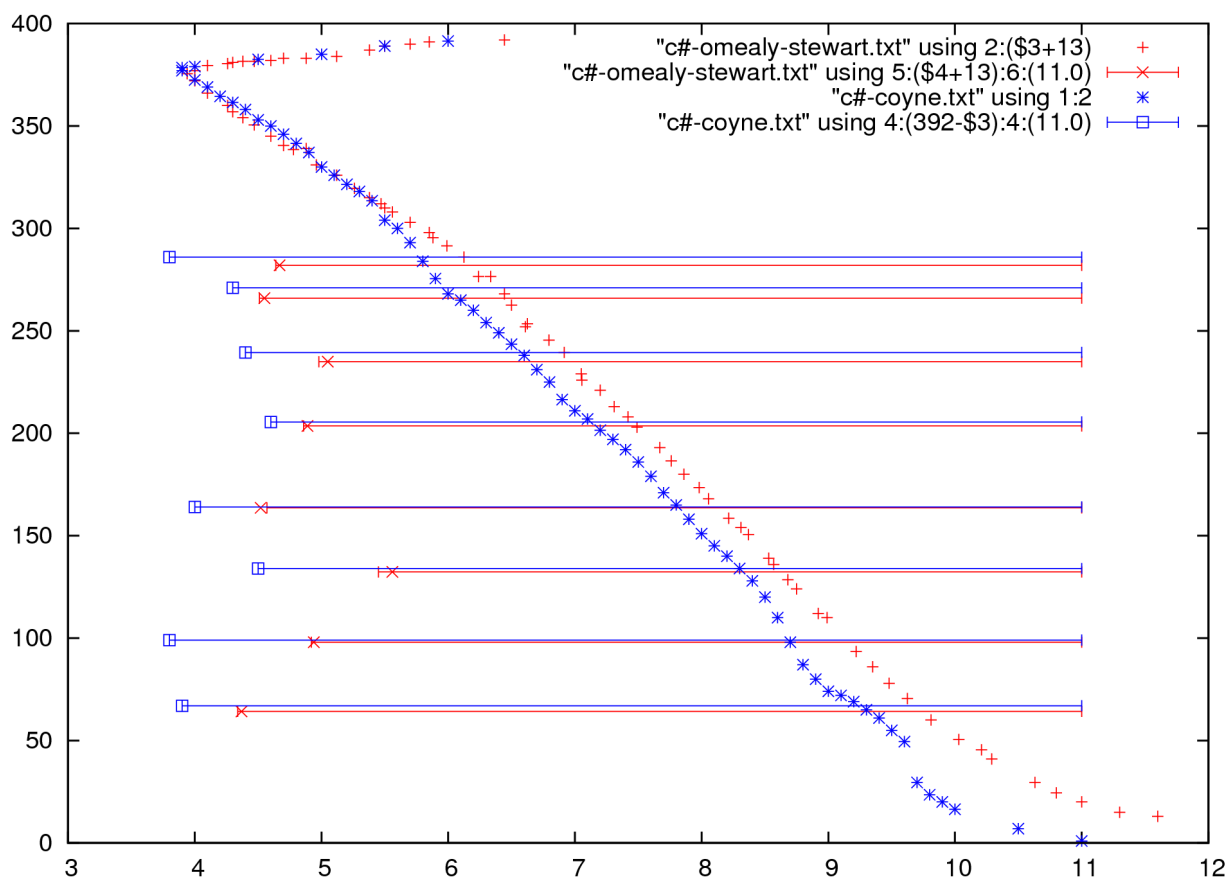
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pin protruding into the cap from the keypad, and a lever of coiled shape formed from approximately 1.5 mm thick copper or brass wire. The stop key, in working order, was not dismantled for examination. It appears similar to a style used by the Taylor brothers, and may have been inspired by a Taylor example. The stop key has a somewhat wider shank (4.3 mm). The stop key may be turned to face either the front of the chanter or the back; photographs of O'Mealy playing similar sets suggest that the intended position was on the back, activated by the upper hand thumb.

The chanter ends in a removable popping valve. The valve is gravity-operated, i. e. it has no spring. The extent to which it opens when the chanter is lifted can be adjusted via a bolt as is shown in the photographs. The valve is attached via snug thread binding, and can be extended slightly from the end of the chanter. With the reed fitted to the chanter by the author, optimal tuning of the F# and E in both octaves was obtained with the popping valve extended approximately 3 mm from its “fully seated” position.

It is interesting to compare the chanter's bore and toneholes with a 19th century chanter in a similar pitch; the diagram below shows the O'Mealy bore (red) alongside the bore of a Coyne C# instrument (blue), arranged such that the tops of the reed tenons coincide. The uppermost sections of the two bores, including reed seats and throats, are broadly similar, with both the O'Mealy and Coyne bores displaying a characteristic “bulge” or convexity above or in the vicinity of the back d. However, in the O'Mealy bore this bulge extends lower, and its bore is appreciably larger thereafter



(that said, other 19th century makers' bores were also slightly larger than those of Coyne). The

toneholes on the two instruments are represented in the figure by horizontal lines whose heights



correspond to the centers of the holes, and whose leftmost point, marked with a symbol, represent the tonehole diameters. The O'Mealy toneholes in the top hand are also slightly lower, despite the fact that the O'Mealy chanter is, if anything, slightly sharper than the Coyne. This may be

readily explained by their consistently larger size when compared with the Coyne. The O'Mealy back d is substantially larger than that of the Coyne; one effect is a distinct tonal difference, but it ensures that a two-finger back d is not required.



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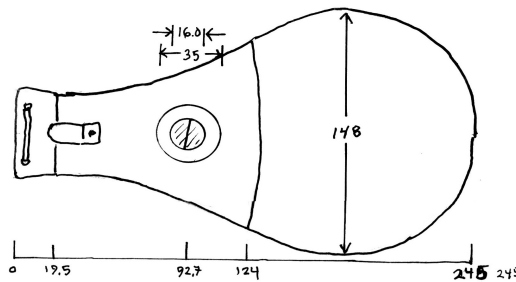
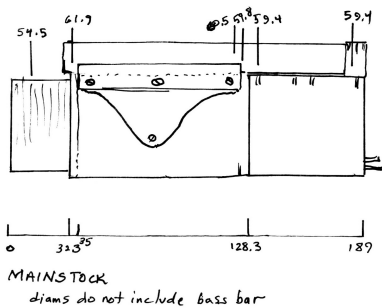


Mainstock, bag, and bellows

The mainstock is solid, and appears to have been made of ebony.

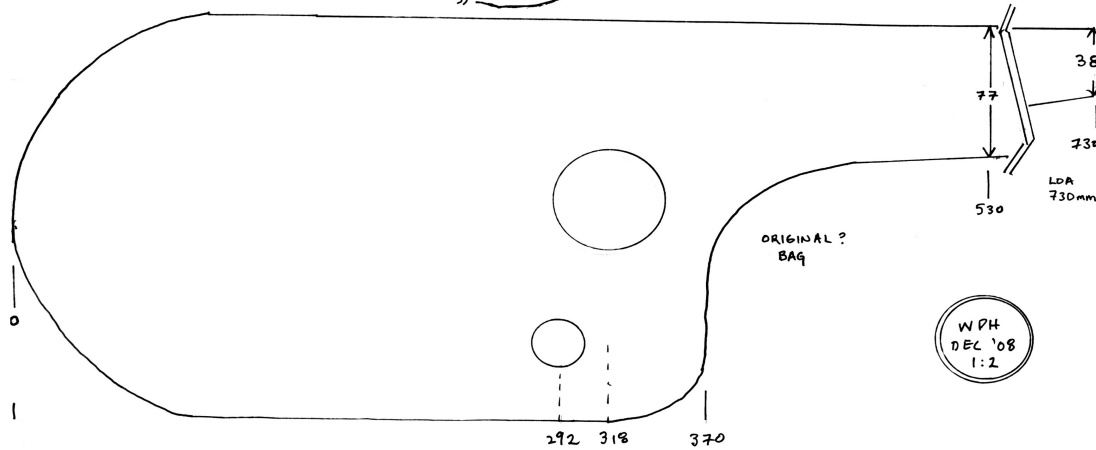
The current bag is a recent replacement. A relatively intact bag, which was fitted to the set in recent memory, is shown in the photo below.

The bellows are stitched, unusual for a set of its period. The bellows valve is small, unobtrusive, and the opening is bisected by a metal 'pin'. This feature is



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BELLOWS



common in early 19th century bellows and may have been intended to prevent the leather valve from being forced outwards in a

“blowout” - it also facilitates removal of the valve². The blowpipe is formed of leather, which seems to have been attached (glued?) to a protruding spigot rather than stitched into the back of the bellows. The bellows features an integral, attached leather elbow pad, which distinguishes it from the 19th century bellows which it otherwise resembles – possibly an innovation borrowed from Taylor and applied to the earlier bellows form by O'Mealy. The bellows hinge consists only of a leather thong threaded through the front portions of the paddles, where they are clad with nickel silver.

Conclusion

In many ways, R. L. O'Mealy's work appears anachronistic in comparison to that of his contemporaries. The Crowleys, McFadden, and the Rowsomes were by this time making wide bore concert pitch instruments with much larger toneholes, as would Alf Kennedy soon after. Even William Rowsome, who did make instruments pitched below D, especially in his early career, used considerably larger throats and tonehole sizes, larger drone bores, and apparently a simpler chanter bore. Only the work of O'Mealy bears a close resemblance to the tonal character and behavior of the 19th century classic makers.

Resemblance to two makers in particular is noteworthy. It is hard to imagine this set having been made by a person who did not spend many hours closely examining the work of Coyne and the Taylors. The drones and chanter keys sport decorative features which recall Coyne. Perhaps more significantly, the chanter was observed to play quite well, with excellent tuning and responsiveness, with several reeds which were previously made for, and fitted to, original Coyne chanters; that is to say that reeds that played well in original Coyne chanters were approximately interchangeable with the O'Mealy chanter. Other decorative and functional features, particularly the regulators, bass drone, and chanter cap, appear strongly derivative of the Taylors – who were also active in the 19th century, from sometime in the 1870s to about 1890. The contrabass regulator arrangement, as already noted, appears to have been taken directly from the Taylor design.

We do not really know how, or from whom, O'Mealy learned his craft. Given the paucity of pipemakers in his early years, it is likely that he was primarily or entirely self-taught. If that is indeed so, we should stand even more impressed by his accomplishment. For a half century after his death, no maker's work would combine the confident execution, 'classic period' sensibility and tone, technical complexity, and robust functionality exemplified by this set.



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The current custodian plays the O'Mealy set

² Wilbert Garvin, personal correspondence.

Acknowledgements

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