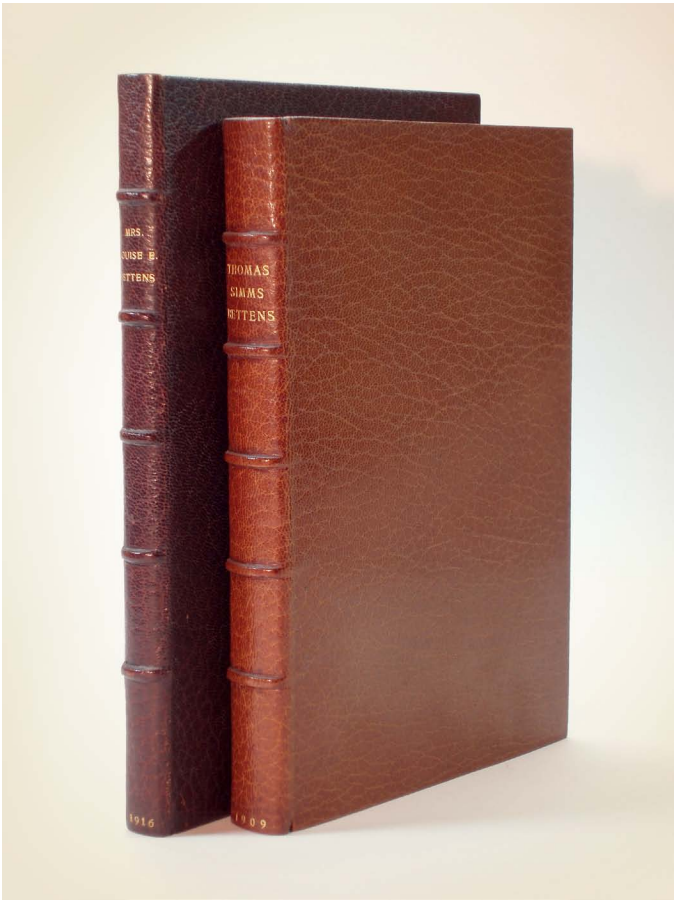
THE

ANATOMY

OF A

STIKEMAN & CO. BINDING



Record of the Deconstruction

of a Full Leather Jansenist Binding
executed by Stikeman & Co., NY ca. 1909

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by
Jeff Stikeman

PREFACE

I sometimes say that these two volumes (below) are in the "best bindings in my collection". But since they have virtually no tooling on them, it's clear I'm not speaking about their finishing or decorative appearance. I mean quite literally the *bindings* themselves, and more specifically their forwarding, their construction. Others in my collection are similarly bound of course, it's just that these two, in their Jansenist simplicity, illustrate that it is the binding of the book which is what makes the book itself. And though we are captivated by tooling, it is secondary. Tooling cannot fix a poorly bound book.

With a Jansenist binding, we can more easily appreciate the aspects of construction and forwarding. Without the gilt to distract us, we focus on the forwarding points and details, the leather, the slight curve of the boards, the way the spine is rounded.

"The Jansenists bound soberly, ...relying on the simple beauty of the leather.... These under-decorated books were better bound in a technical sense, ...were more solidly prepared, more carefully sewn, more cautiously covered".

-Brander Matthews
"Bookbinding Old and New: Notes of a Book Lover", 1895, NY.

I purchased my first copy of *Thomas Simms Bettens* for about $40, ten or so years ago. It is a relatively common title, despite a limitation of 250 volumes. At the moment (Nov. 2014), there are a few in decent condition, and many in poor condition, at prices ranging from $20 to $200.

To determine how a Stikeman & Co. binding was constructed, forwarded, I purchased a second copy in relatively poor condition. It would serve as the subject for an autopsy of sorts. I decided to photograph and record what I found.

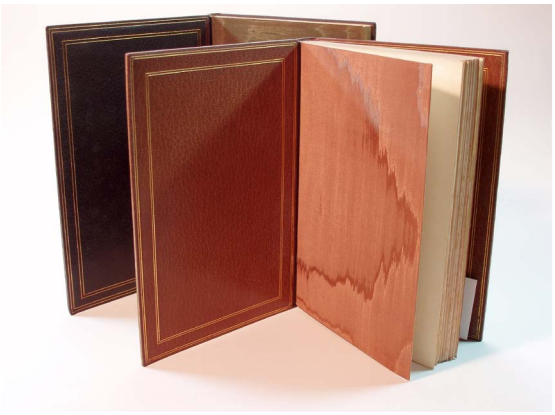
The idea was to determine:

- whether the books were flexibly sewn, stiffly lined, or hollow-backed;
- whether the text was sewn on five true cords and how was it sewn;
- or instead were there suppressed cords, perhaps just three, together with false bands;
- if sawn, how deeply sawn was the text block;
- were the headbands truly sewn, and tagged in, or premade decorative elements, glued to the spine;
- how thin was the leather overall, and how far back was it pared at the edges

Apologies in advance to those skilled in this field, because I am certainly not. I also did not try to preserve the elements as you might for a repair or rebinding, although I did attempt to keep parts as whole as possible throughout the process.

"To be strong-backed and neat bound is the Desideratum of a volume. Magnificence comes after"

Charles Lamb, 'Essays of Elia'



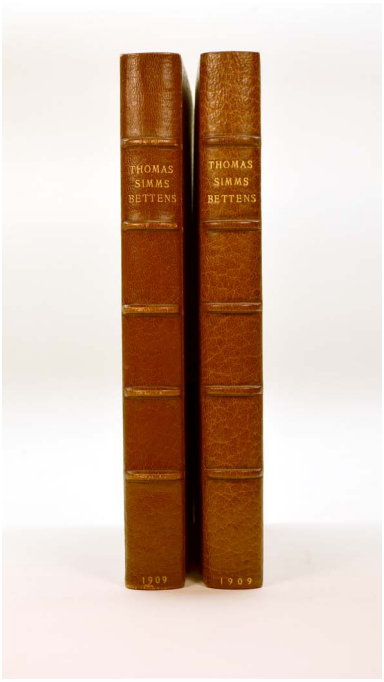
Thomas Simms Bettens (front) and Louise Bettens; Memorial Volumes in Bindings by Stikeman & Co.

The memorials were printed by the Gilliss Press on the handmade paper referred to commonly as 'Japanese Vellum', with photogravures by the Gubleman Company of New York. They were bound in full leather, with doublures and silk flys, by Stikeman & Co., of New York.

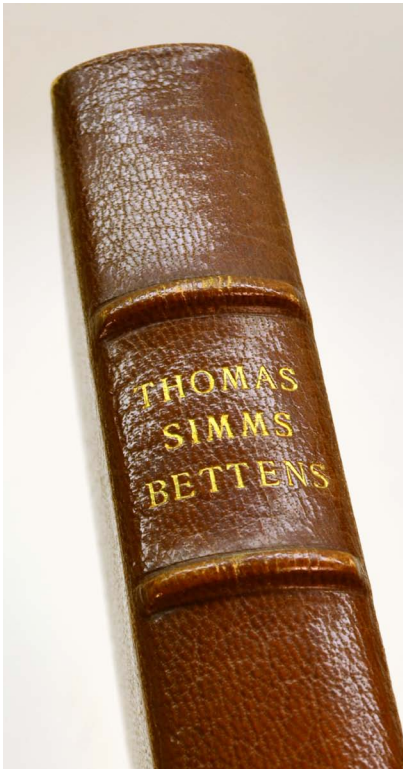
The bindery at this time was still under the direction of Henry Walter Stikeman, and would remain so for a further ten years. The Gilliss Press, which printed most of William Loring Andrews' titles, was headed by Walter Gilliss, secretary of the Grolier Club.

THE RELUCTANT SUBJECT

Two copies of "Thomas Simms Bettens", by Edward Detraz Bettens, NY, 1909. The subject copy (in poor condition) at left, my own copy (fine) at right



Both Above and Below: Subject Copy is at Left, and My Copy on the Right



Thomas Simms Bettens

Author: *Edward Detraz Bettens, 1848-1920*
Subject: *Bettens, Thomas Simms, 1851-1907;*
Bettens, Louise E., 1827-1914

Pub: *The Gilliss Press, NY: 1909*
Re: *Mrs. Louise E. Bettens; The memorial of the Class of 1874, Harvard College; The teacher and his pupils; Letters referring to the Bettens' memorial fountain in the Harvard Union;*

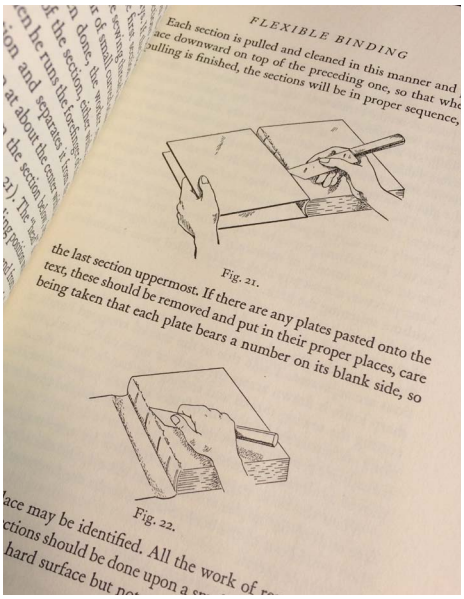
Format: *132 p., [17] leaves of plates; 11 p., 19-132 p., 4 l. : front.,*
Size: *22.3 cm tall x 15.5 cm wide x 2.6 cm thick; 8.75" tall x 6.25" wide x 1" thick; Boards 4mm (1/8") thick; turn-ins 4mm(1/8")*

Binding: *"Bound by Stikeman & Co."*

EXISTING CONDITIONS

CONDITION: Corners bumped and splitting; Rubbing and shelfwear to bottom edges; Corners of text block bumped; Rear endpapers tearing free; Rear board scratched and faded w/ shadow of smaller adjacent book; Rear doublure split away at lower seam; Spine hubs rubbed; Caps cracking at board nicks; Front hinge starting; Pencil markings to one illustration title; an Ex-libris copy (Seymour Library, Knox College, Ill.), with book plate tipped onto verso of the front fly, and yellow paper catalog description tipped on recto of facing page;

PROCESS & FINDINGS



FLEXIBLE BINDING

Each section is pulled and cleaned in this manner and ace downward on top of the preceding one, so that wh ulling is finished, the sections will be in proper sequence,

Fig. 21.

the last section uppermost. If there are any plates pasted onto the text, these should be removed and put in their proper places, care being taken that each plate bears a number on its blank side, so

Fig. 22.

lace may be identified. All the work of re ctions should be done upon a sm hard surface but not

With regard to reversing the forwarding process, I looked to Edith Diehl's "Bookbinding: Its Background and Technique" (above) for guidance. I'd like to thank David Donahue (of 'David Donahue Book Restoration', Philadelphia, PA), whose practical advice was also invaluable.

I suppose the endpapers could have been taken out first, but the inner boards have leather doublures, and the fly leaf is of silk, with a leather hinge. So I decided to go at the easy stuff first. As point of attack, I took to the doublures.

In the prior page of condition photos, it's clear the rear board's doublure was already splitting off at the bottom turn-in, probably from the damage caused by the severe corner bump. So I went in there, using a lifting knife improvised from a Dremel™ offset scraping blade secured to a large wooden knob as handle . It worked very well at separating the doublures from the boards, and the bevelled edges and rounded corners prevented any accidental damage. I switched to a smaller chisel, for work in tight areas.

Only 4mm (1/8") of the turn-ins are exposed, with the edges of the doublures covering them. The edge of the doublure is concealed by the second inner gilt rule, 1 mm wide, centered exactly on the seam, typical at all edges. Beneath the doublure, the turn-ins extend a quarter inch, and are bevelled inward.

Behind the doublure, pasted to the inner board (inside of the frame of the turn-ins) is a thin sheet of paper. It came up with the doublure.

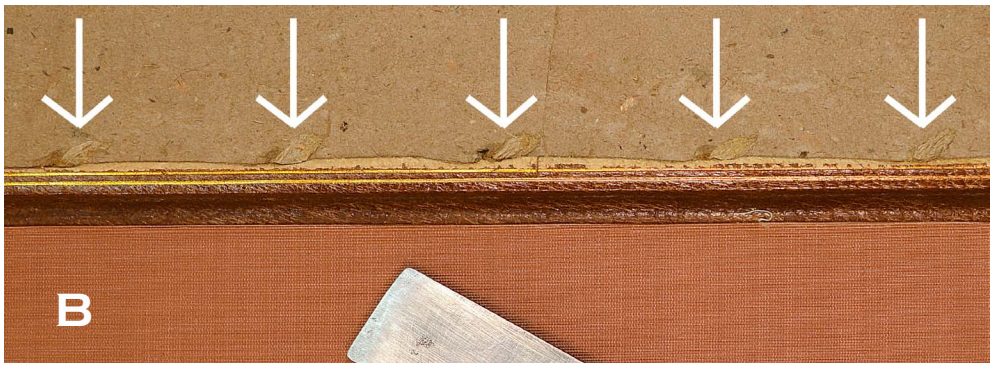
The doublure is the same thickness as the leather turn-in (though pared at the edges), so it's clear that the thin sheet isn't filler (as would be required with a paper

pastedown). But it maybe helped elevate the doublure enough (which is the same thickness as the turn-ins and board leather, say .75mm) so that its pared edge could barely lap the 1/4" turn-in, for about an 1/8".

Tom Conroy offered that the lining was often to provide a smooth surface to paste the doublure onto the often-rough rope board. But the board is rather smooth already. Perhaps it was used to induce a slight convex/inward curve of the boards, when the paper dried and shrank. Diehl asserts the necessity of this convex shape to counter any tendency for the boards to curl away from the book. Modern sensibility seems to view this as a defect. But Diehl implies the curve is a sign of a well considered binding. The logic behind a doublure itself is (ostensibly) for the inner leather to shrink in tandem with the leather of the covering, effectively cancelling it. And so the thin sheet of newsprint-weight paper would provide additionally needed 'board warping' force to the inner doublure.

Due to the wear on the outer cover, at the spine hubs, (see A, below) I was sure that all five bands were likely real, and that the boards would be found secured by five cords whose slips had been laced into the boards. Sure enough, once the doublure was off, all five cords were readily apparent (see B, below). I'd have to wait until the leather was off the boards, but it was clear that the boards were holed out quite close to the joint on the exterior, as they came through quite close to the hinge inside.

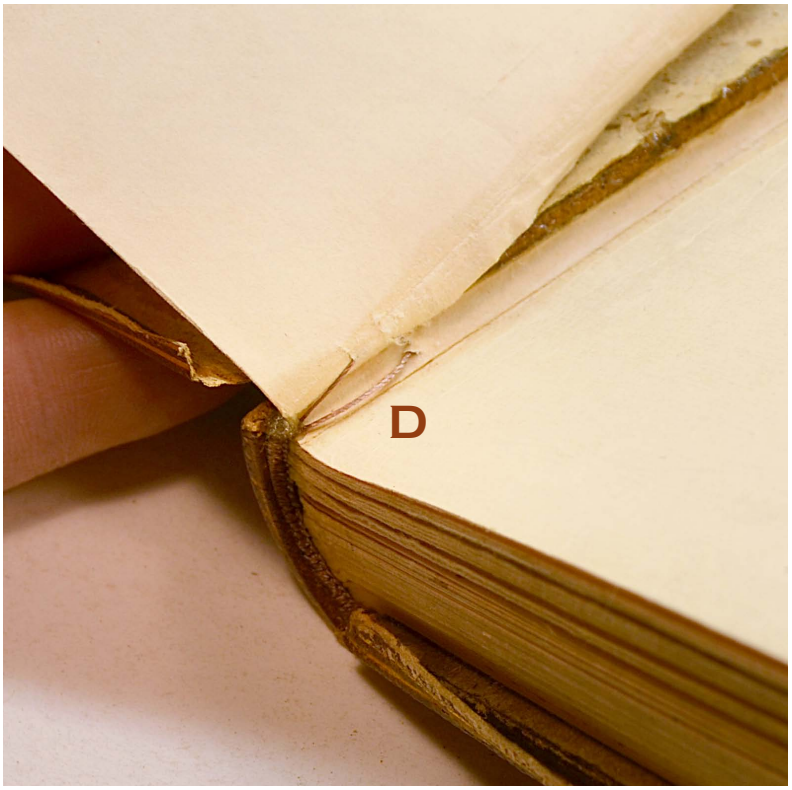
To me, this is an important difference. Commonly, many fine bindings of this period (by many well-known binders) were executed as a rule by sewing them on only three cords, with two false bands among the five on the spine. Worse, and also common, the text block was often deeply sawn, the three cords suppressed entirely within the back, unrelated to the spine band locations, with all five bands false. With stiff 'Japon' paper like that used here for the text, five true cords like these could make for a very stiff back, especially if they were suppressed into grooves and the spine heavily lined. It remained to be seen how the cords were handled.



With the doublures off, I returned to the fly leaves to: remove the silk lining which covered the leather hinge; remove the leather hinge itself; and then tear out the endpapers,. After that, I'd free up the turn-ins around the other three sides of the board, before screwing up the courage to have at the board cover and spine..

The silk peeled back easily from the surface of the Japon (see C, below), bringing with it a few fibers, but otherwise cleanly. It was laminated to Japon filler, and the whole was "tipped on", pasted only at the edges.

Though the silk of the Fly came off easy enough from the paper, where it was pasted over the perilously thin leather of the hinge it began bringing up bits of leather with it. I wanted to try to preserve as much whole material as possible, so I wetted the hinges where they stuck with a bit of methylcellulose. After a few minutes the paper came free.



With the silk lining off, I pulled out the endpapers fairly easily, but made note of the anchors (D, at left) from the head and tail bands before pulling them free. Given these telltales, I was pretty confident that the head and tail bands must likely be truly sewn and tagged into the text block, and not simply a decorative element strip which has been glued on.

Although Stikeman & Co. usually used multicolored headbands (two-color, typically), these of this more somber volume are single-colored, and match the golden brown colored dye of the crushed and polished leather.

With the endpapers off, it was time for me to face the inevitable: trying to remove the leather covering of the boards and spine.

Typically, I suppose the thing to do here would be to free the boards by cutting the five cords which held them to the spine. If we were going to be rebinding, then there's no need to try to get the covering off in one piece, right? But I wanted to see if it could be done, and to be able to retain the entire cover if possible.

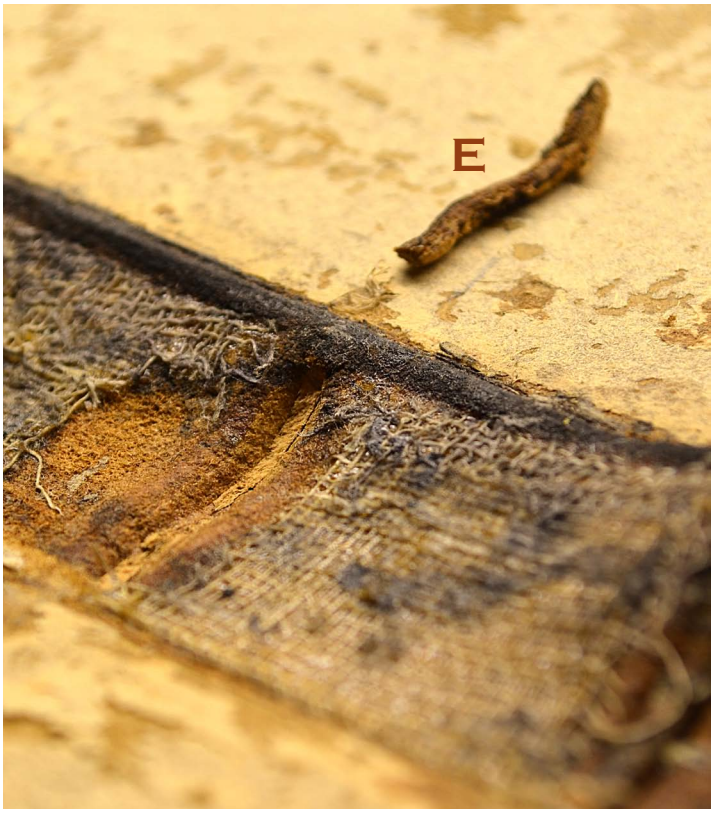
The turn-ins were first. I assumed that because they were so narrow, and exposed to potentially great amounts of bumping and wear, that they would be heavily pasted. I also had thought they'd be pared very thin. Surprisingly they came free quite easily, and they were the full thickness of the leather elsewhere. I worked along each turn-in with my fingers and the chisel (again, apologies to the purists for tool choices), and they were free.

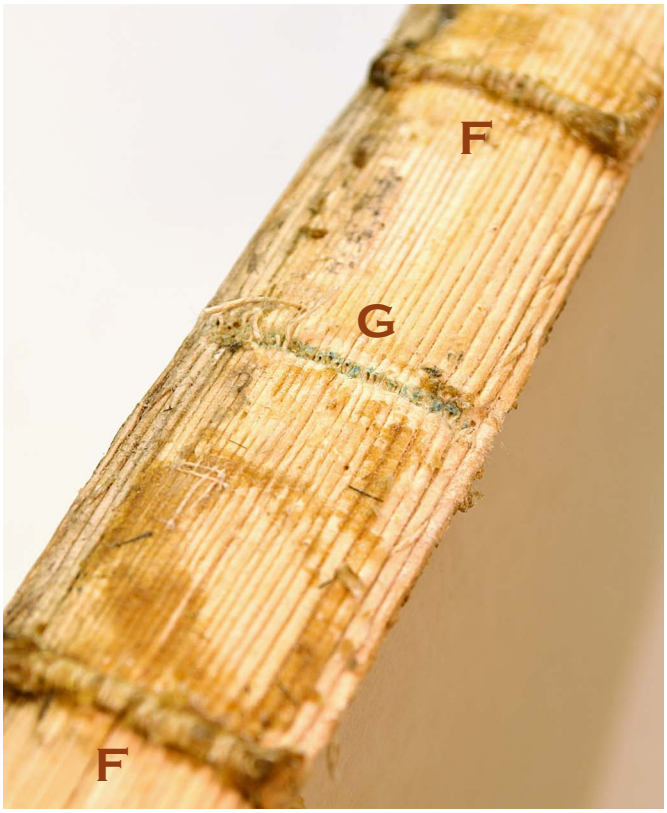
My improvised (Dremel™ scraper) lifting tool worked quite well at freeing the leather from the boards. I also found that pulling upward slightly while rubbing my other hand under the leather along the adhered portion freed it quite quickly too, without the danger of a tool edge to cause damage. After about ten minutes of careful work, the boards were free of the covering, and it was on to the spine. I was greatly surprised how flexible and tough the leather was still, 115 years later. The front hinge may have been starting and dry, but the leather of the boards not at all.

The Spine: I tested to see how tightly the leather was adhered to the spine. Answer? Quite. And so, starting between the cords, I worked a small bit at a time along the length of the spine, freeing about 1/16" of an inch off the back of the text block, and just the width of my chisel. It appeared to be a yellow hot glue (hide glue I think) used for the spine, as opposed to paste for everything else so far.

The front cords and hinge were weakened a bit, and didn't take this very well. The front board came loose, but I managed to keep the leather of the front together for a decent portion along the hinge, although it was quite dry and eventually cracked and split. The rear hinge, maybe due to less use, fared better, and the rear board remained attached and the leather remained whole. This was aided by liberal (perhaps too liberal) use of the methylcellulose to soften things. I would work a bit into the joint with the paintbrush, and wait ten minutes or so. It came free after perhaps an hour and a half.

The spine is where the action is, no? I was really quite happy with what I found. I'd had nightmarish images of low-grade short-cuts, but instead found evidence of some really solid "extra" binding. I think it speaks well for the period, ca 1910, when the boom was slowing and the connoisseurs were becoming fewer and fewer. It could have been perhaps excused if a binder, charged with binding 250 of these volumes in full, took a few short cuts. Sewing on three cords would have saved almost half the time in the sewing frame, and using pre-made fabric-backed head and tail bands would have saved maybe a couple hours per book or more.





LINING AND BANDS

There were no false bands, no hollow back. ...and the spine was minimally lined, in keeping with the idea of 'flexible' binding, counter to the French method of heavily lining, which produced overly stiff spines and risked cracked backs.

Diehl, a proponent of flexible sewn binding, advocated the use of a single layer of mesh-like 'super' for lining, which is the case here. It made for a "supple back", and was "superior to English Muslin or jaconet" in achieving better adhesion and smoothing. Here, the super was only set in the panels between the bands, and not over the bands themselves.

There was no evidence of any additional paper lining, but it may have been scraped off with the glue by my working. The spine hubs were built up by the use of two plys of leather added over the raised cords (see E, in the above photo).

The cover leather was glued directly, through the super, to the text block with hot hide glue.

CORDS AND SEWING

I've realized that Henry had an aversion to anything which overly modified the text block and was not reversible: no gauffering; no trimming where unnecessary; no fore-edge paintings. I wondered if this extended to deep saw cuts, and so was happy to see that his cords (F, above) were truly raised, and not sunk into the text via deep saw cuts.

The middle cord in the photo above has been removed to show the most minimal of grooves (G), maybe 1/16" deep. The narrow cut doesn't do more than bruise the outer pair of sheets. The paper of the rest of the signature is uncut. Sewing the heavy Japon still required the needle to penetrate the inner few sheets, instead of merely sneaking in and out beside the cord in a wide hole left by a deep/thick saw. The cord is left raised and flexible on top of the spine.

The sewing was "all along" (versus "two-up", etc.), and both sets of endpapers were overcast onto the text block to reinforce them.

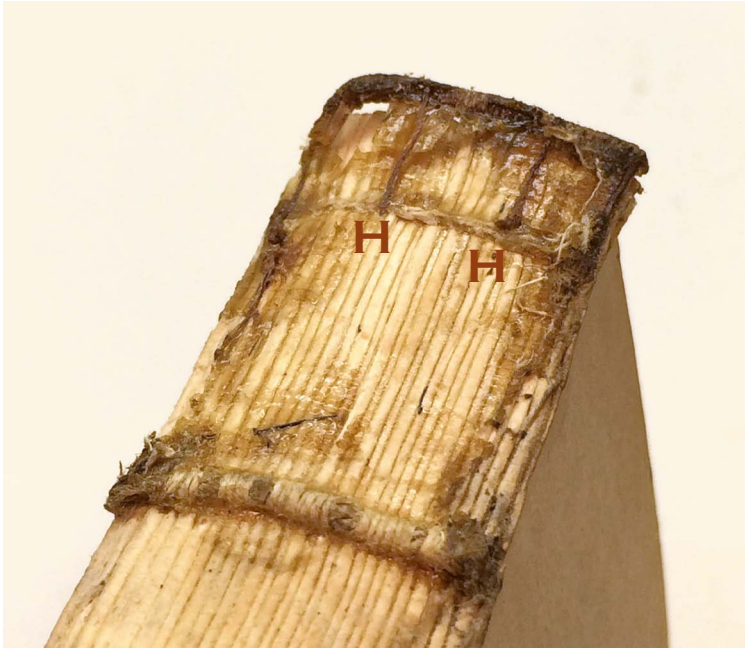
The overcasting is difficult to see, but the photo below some of the whip stitching can be seen on the next-to-last section on the far right. The previous photo may show them a bit more clearly.

I mentioned previously that the head and tail bands were anchored to the endpaper sections and appeared to be truly sewn.

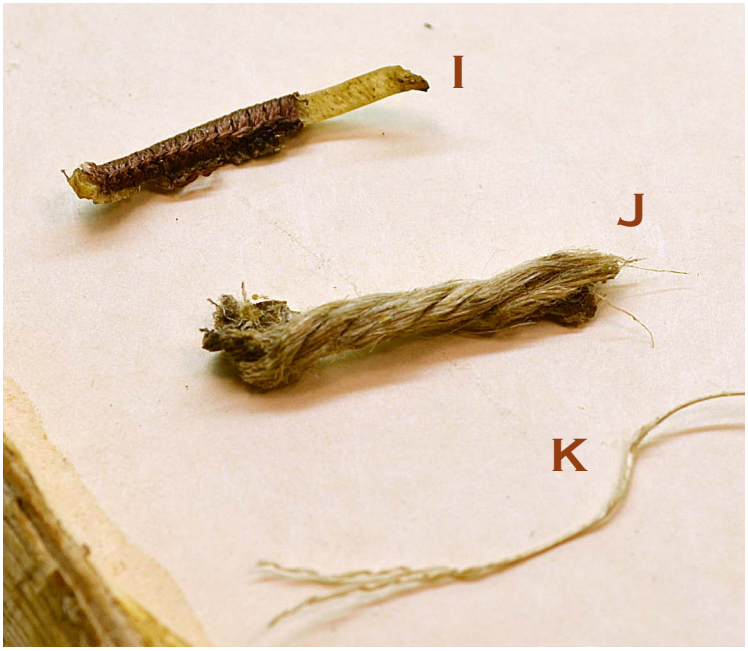
Once the leather of the spine was off, and most of the glue removed, it could be seen that they were tagged in twice more (H, at right), a third of the way in from the boards. The anchors were carried down into the kettle stitch. Again, instead of a two-color, contrasting, bright headband, a more somber brown was used for this memorial volume.

The core of the head and tail bands was found to be a strip of vellum (see I, below). This is in keeping with extra binding, and counter to the cheaper leather or paper cores, or glue-dipped cord, used by 'job' binders of the period.

The cord used was six-ply hemp (see J), and the thread used for sewing an unwaxed, unbleached two-ply linen (see K).



The headband is still in place here, thought wet and dark from my amateur and overly-liberal application of the methylcellulose. The tagging (H) is into the kettle stich.



From top to bottom:
(I) Tail Band w/ some thread removed to show vellum core;
(J) Six-ply Hemp Cords, onto which the text was sewn;
(K) Two-ply unbleached linen thread used for sewing.

Left: an Improvised Press for working on freeing the spine leather (the board cover here is already free)

FINAL THOUGHTS

It's as instructive to talk about what I didn't find, as it was to list what I did. No false bands, no brutal saw cuts, no false headbands. There were no shortcuts. The work was done in keeping with the expectations of 'extra' binding of the day. Though I was pleased to find this, I don't propose that these are better bound than any other art binder's work of the same period, but they are certainly equal to the best.

Henry Stikeman learned what he knew (forwarding, finishing, the management of a bindery) from apprenticing and working under William Matthews[1], the father of American bookbinding. In fact, a Matthews binding and a Stikeman binding appear virtually identical underneath the gilt. The technical and structural details of the typical 'Stikeman & Co.' binding were not merely a habit of practice, carried on simply due to training. but that as Matthews did, Stikeman respected the text first and foremost. It was the book's raison d'être. Do nothing to damage the text, and do everything you can to preserve it. Otherwise, why bind?

MODERN BOOKBINDING.

I do not desire to lessen the high appreciation which book finishing has and deserves, but simply to demand credit for that branch on which depends the important principles that constitute good binding—solidity, strength, flexibility, trueness, and the skillful manipulation of leather.

There is little satisfaction in having a book elaborately finished if it is not well forwarded. I know full well that finishing is an art, and that forwarding is simply a handicraft; but I know by a long experience that it is a very difficult one and deserving of its just honors.

Wm. Matthews, on the importance of forwarding relative to finishing.[2]

For the last ten years of the 19th century, Stikeman had an average of 10-12 employees. I have no numbers for 1909, but it was probably similar. There were 250 copies of this binding done, a substantial effort by the forwarders, but it was achievable in a few weeks' time.[3]

Louise Bettens, under the guidance and advice of Walter Gilliss, publisher and Secretary of the Grolier Club, spared no expense. Each volume cost $17 dollars in 1909, a good bit of it related to the photogravures and printing, to be sure.

2. Thomas Simms Bettens, 250 copies; printed on hand made imperial Japan paper; photogravure illustrations; bound in levant with doublure and silk fly leaves..... 4,434.55

Allowing for inflation solely, the cost in today's dollars is about $450 per volume, for printing, illustrations, and binding. But I have estimates from a number of respected binders that to replicate one binding today (not including printing), it would be around $1500 ea.[4]

Stikeman and Company's later work, its more commercial bindings and sets, can be found in great number. But their earlier high grade bindings, like that considered here, are fewer and far between. It's a direct result of the more intensive production time required by hand work and attention to craft of extra binding, and a small staff.

This binding was done at a transitional point in their history. In 1909, the firm is coming out the other side of a boom era of true connoisseurship by collectors and is, along with other binderies, soon to be trying to survive in a more commercially competitive environment. In ten year's time, we'll see a management and sensibility shift (and many cost-cutting measures will go into effect) when the bindery is taken over by Morris Kalaba and Henry retires. But in 1909, the bindery was still operating under the tradition of fine binding instilled in Henry by his training under William Matthews.

-Jeff Stikeman, Nov. 2014

Thanks to:

Nolan Goodman, binding collector, for his enthusiasm and encouragement; David Donahue of David Donahue Book Restoration, for his guidance and estimate of the labor and cost required to reproduce a similar binding today; Phil Bishop, Curator of the Bishop Collection of the Mosher Press and Thomas Bird Mosher, for his critique; and especially to Thomas Conroy, the noted fine binder and binding historian, for his encyclopedic knowledge regarding the production capabilities and techniques of an 'extra' bindery ca. 1909, and his generous willingness to share it.

-J.S.

1 "A Superb American Binding," American Bookmaker Vol. XVII, No. 5, Nov., 1893 pp. 150-151
2 Matthews, William. Modern Bookbinding Practically Considered. NY: Grolier Club, 1889.
3 See p.14, Appendix: 'Estimate of Time Req'd to Replicate the work", courtesy David Donahue
4 Phone conversation w/ Thomas Conroy, November 20, 2014

(appendix follows)

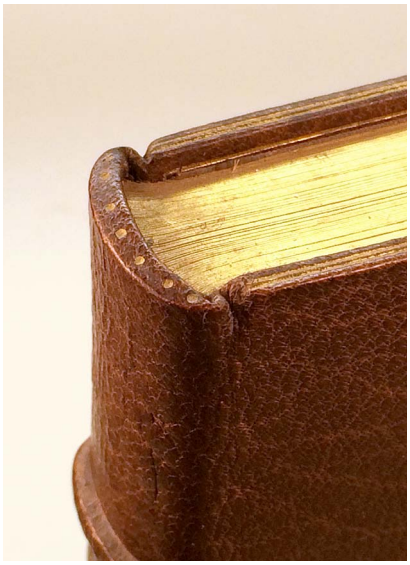
APPENDIX & NOTES

FORWARDING DETAILS

There are some "tells" from the hands of the Stikeman & Co. forwarders which exemplify the bindery's work. And although I'd be hard-pressed to explain what specifically about them makes them "Stikeman" versus any of a number of extra binders in operation at the time, all I can offer is that when they are taken together, they fairly scream to me from the shelf that they are the product of the bindery. Spine title typefaces and spacing, the rounding of the spine, the hubs, the board nicking, the squared edges of the boards... It's hard to say what if any real differences there are between one bindery or another. But there is something to it.

SPINE HUBS

Quintessential examples of "Stikeman" spine hubs, though similar to very many found on other American bindings of the period. Note blind rules at top/bottom of each hub, the squared sharp nipping-up, and the tangent where they meet the boards at the hinges.



ENDCAPS & BACKING

Endcaps and the Elliptical spine Profile, formed as a result of the rounding and backing. For most work, books of typical thickness, this was the standard profile of the back.

BOARD EDGES

Edges are generally quite square due to the uniform thinness of the leather (1/32",<1mm)., and because the Board edges are not eased.

NICKING

The nicking of the boards is clear and sharp. A thread was tied around the back through the nicks at the head and tail, in order to help form the head cap.

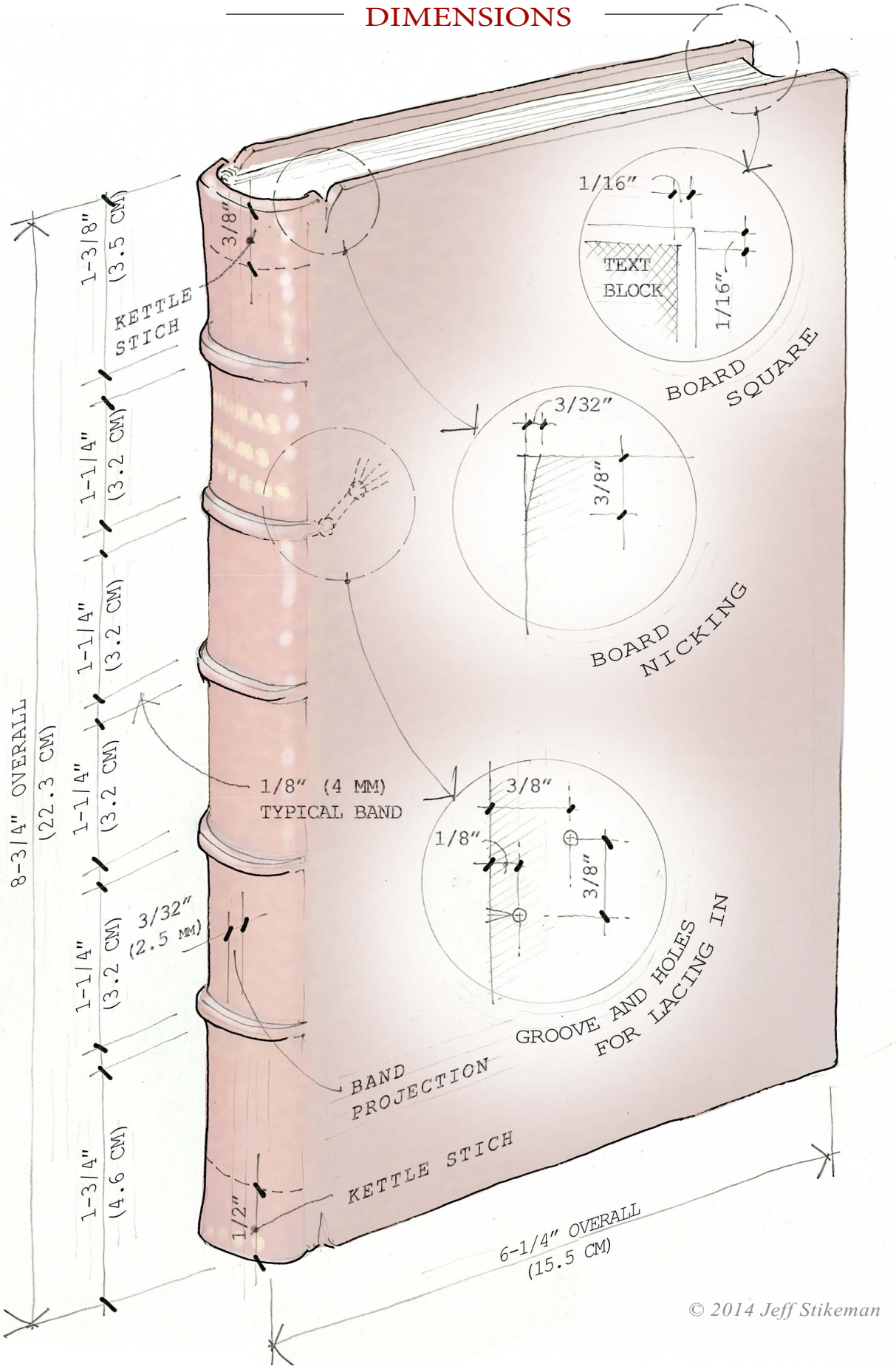
BOOK SQUARE

On this volume, the "book square" is only about 1/16", 1.5mm

[N.B. that these photographs are taken from my own copy, in fine condition]

APPENDIX & NOTES

DIMENSIONS



APPENDIX & NOTES

ESTIMATE OF TIME REQUIRED TO REPLICATE THE WORK

This binding requires skill in three main areas; leather preparation, tooling, and head band sewing.

But let's start with the easier stuff to figure: materials.

Budget for using one whole goatskin binding per book. That would be the minimum, as that would allow for the cover material and for the matching material for the doublures. $120-180 per goatskin, and that's for top of the line stuff.

Silk moire in more standard colors is readily available. For the balance of material; figure $50.

Labor (see at right) totals between 22-26 hours:

A modern one-off binder, working without rushing, would take a week or more to finish one binding with all the drying times included. Of course when these [250] bindings were done, the shop was set up for it, so it may be that the total time during production was easily half that. Maybe they were knocking out 2-3 bindings per week per binder and frankly, a jobbing shop, even today, with the right amount and right kind of presses (large standing french press) might actually be able to average as much as 10-20 books per week without any issues. It's all in the equipment, layout and amount and skill of the staff. Some tasks would be given to apprentices and journeyman binders with the leather paring and tooling being done by the highest skilled binders, but these are estimates for a small custom binder working alone or with one helper, doing one or two books at a time.

In summary, 22-26 hours plus materials would be a good budget; if [it were a] job shop set up for multiple binding production, then 10-20 books per week might be realistic and the total costs between the two options would be comparable [due to] economies of scale.

-David Donahue

Source: email of 21 Nov. 2014, from David Donahue, David Donahue Book Restoration, Philadelphia PA; with permission

LABOR

Spine prep: line spine with vellum or leather; back and round -	1 hr
Cut cover boards and prep. test fit; rounding adjustments -	1/2 - 1 hr
Cords: glue and sew on raised cords; build up with leather -	1 -2 hrs
Sew on headbands (silk threads on vellum cords) -	3-4 hrs
or w/ a highly skilled sewer.	1-2 hrs
Cover leather preparation: size, cut, pare for turn-ins -	1 -2 hrs
Cover leather installation: mitered corners; nipped around bands -	2 hrs
Tooling on board edges - includes set up time.	1-2 hrs
Double cuts and preparation including paring -	1-2 hrs
Line back side of cover boards to levelness -	3/4 hr
Prep and installation of silk moire flypapers includes bonding to matching paper backs -	1-2 hrs
Installation of leather doublures into covers -	1-2 hrs
Tooling on doublures -	1-2 hrs
Finishing -	1-2 hrs

22 - 26 HOURS TOTAL

PLUS $180-240 MATERIALS

APPENDIX & NOTES

THOMAS SIMMS BETTENS

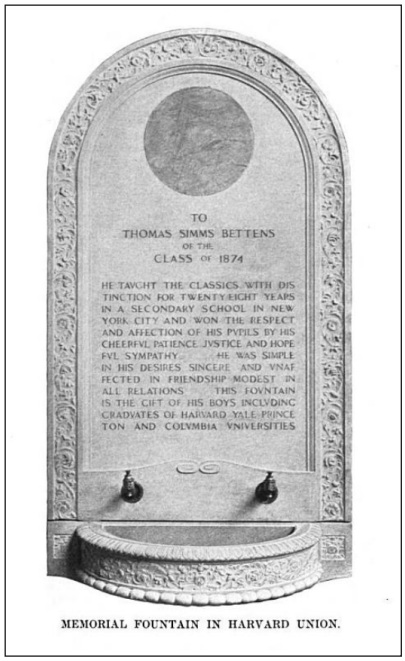
Widener Memorial Library, Harvard; "Book Table & the Bettens books" 1915

Ten Memorial Volumes relating to Thomas Simms and Louise Bettens, "Exquisitely bound and decorated by the best binders in New York"[1]

"Thomas Simms Bettens and Don"

from a Portrait painted by Walter Florian

Thomas Simms Bettens (1851-1907) was educated at Harvard University and became, at a private school in New York City, a teacher of Greek and Advanced Latin. By all accounts, he was beloved by his students, devoted to teaching, and a student of books. He and his brother Edward, both of whom never married, doted as much on their mother as she did on them. Following his death in 1909, his mother Louise Bettens, a benefactor of the Arts and Education, had a memorial volume for him printed and bound for distribution to his students, other educators, and for Harvard University. A number of his students gave a marble fountain, placed at the Harvard Memorial Union, in his memory. [2]



MEMORIAL FOUNTAIN IN HARVARD UNION.

Memorial Fountain, at the Harvard Memorial Union, designed by Francke Huntington Bosworth, and sculpted by Masaniello Piccirilli from six feet of pink Tennessee Marble [3]

Sources: 1. Harvard University Archives, Repository Record HUV 49 (11-8) and "President's Report, Harvard College", 1915; 2."Ninth Report of the Class Secretary, Class of 1874 of Harvard College", June 1874- June 1909, pp13-16; 3. "Thomas Simms Bettens", Gilliss Press, New York, NY, 1909