



Doan Secretary Desk

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DOAN'S STYLE SHARED INFLUENCES FROM PENNSYLVANIA TO ONTARIO

This is a project that you could say has been 15 years in the making.



In 2007, the cover of a Lee Valley catalog featured a beautiful secretary, or slant-top desk from the 1800s. I was immediately taken by the design and the spectacular birdseye maple. But I had no thought of building such a complex piece.

In 2014, I was able to view the desk at the Canadian Museum of History, in Ottawa. (*P&T* readers may remember my article in the Winter 2014 edition.)

Again, building a replica seemed way out of my league and not even a consideration.

Then, last year, I discovered a book about this desk. Or to be more precise, on John Doan, the craftsman who built it and many other pieces.¹ While it is not a “how-to” book, it has a lot of pictures and construction details. I

it into the book.

First, a little background on the desk and its maker. Doan was born in Pennsylvania, and learned the cabinetmaker's trade there, but moved north to Upper Canada (part of Ontario today) in 1807. He was part of a Quaker migration to the region, eventually settling in what is now Sharon, Ontario. He built this desk around 1830, one of four he is believed to have built.

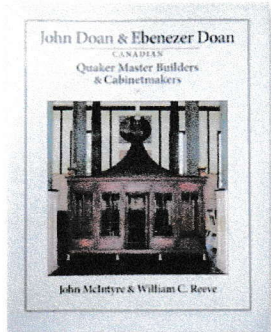
At first glance, this seems to be a familiar style of furniture. But it has a few surprises that made it a challenge to build.

“The front-facing elements are made of birdseye maple. The case is made from pine.”

Let's start with the wood. The front-facing elements are made of birdseye maple. The case is made from pine. If Doan had built this piece in Pennsylvania, he probably would have made the case out of mahogany, but that was scarce and expensive where he lived. The case sides are made from a single board of white pine, 21¾" wide. I couldn't find boards like that, so I glued up two 12-inchers.

Doan finished the pine on many of his pieces by staining it to look like mahogany, or sometimes walnut. It's not a look I like. This desk was refinished at some point, with a more natural pine look, so I decided to do the same. More on finishing later.

As for the birdseye, I simply couldn't find the amazingly rich, wide boards needed to match the original. (Reeve says “Doan must have spent years selecting and collecting the finest lumber...”)² But I'm reasonably happy with what I found.



took a deep breath and decided it was time to try building my own desk. It helped that I was able to contact one of the co-authors, William Reeve, who was incredibly generous with his advice, even sending me photographs that didn't make

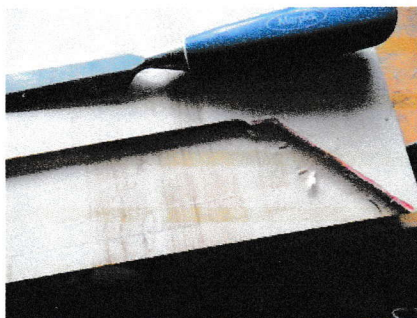


Doan Secretary Desk *(continued-2)*

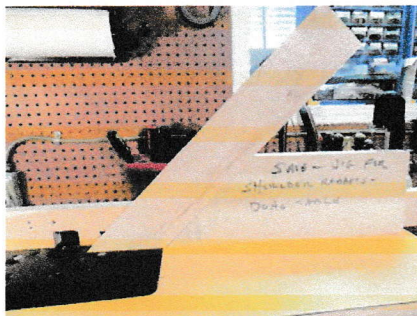
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For me, the most unusual element in this piece is the lid. It has mitered breadboard ends, or cleats. I'd never even heard of such a thing, let alone seen one. (*P&T* Art Director Julian Peters later sent me a photo of one at the Yale Furniture Study.)

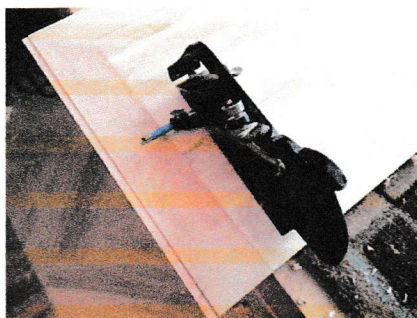
wood movement. So I came up with a different approach.



Creating the mitered corner on the lid, using a router and chisels



Jig for making mortises in mitered breadboard ends. (The jig was mistitled.)



Starting to shape the lip molding on the lid

What I did is cut the miters on the lid, leaving a tenon there and on the straight sides. I made mitered breadboard ends with mortises. Then I glued everything together only at the mitered part. My theory was that the lid could move freely, with all the movement happening away from the miters.

Well, we had a very hot, humid

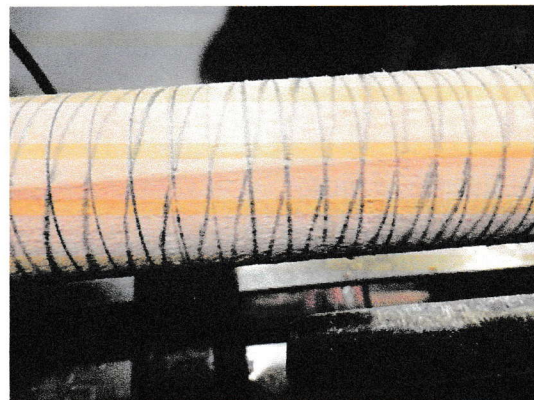
summer in Ontario this year. The maple top really moved. To my horror, a substantial gap opened at one miter. So I undid the glue-up and re-did it. (Fortunately I had used Old Brown Glue,

“Well, we had a very hot, humid summer in Ontario this year.”

which is reversible, but don't let anyone tell you it's easy!) Everything seems to be working as it should now. But check back with me in 200 years. (If anyone has more information on this type of lid, I'd love to see it.)

Another challenging element was the quarter columns. The lower case has simple turned columns. But the upper cupboard has rope-turned columns. Reeve believes Doan “must have had access to some sort of screw-thread lathe, given the precise nature of the rope-turnings.”⁴

While such lathes have been around for a long time, I felt that Doan wouldn't have had easy access to one, and I don't either. A close study of the photographs with a magnifying glass revealed what appeared to be evidence



Marking the blank for the rope turnings, which will be carved out.

of carving, so I decided that would be my approach.

I probably spent as much time lay-



Doan's construction was very complicated. According to Reeve, the diagonal ends “were joined to the main board by a short bridle joint, also known as a



Through tenons on the lid of the original desk. Photograph by William Reeve.

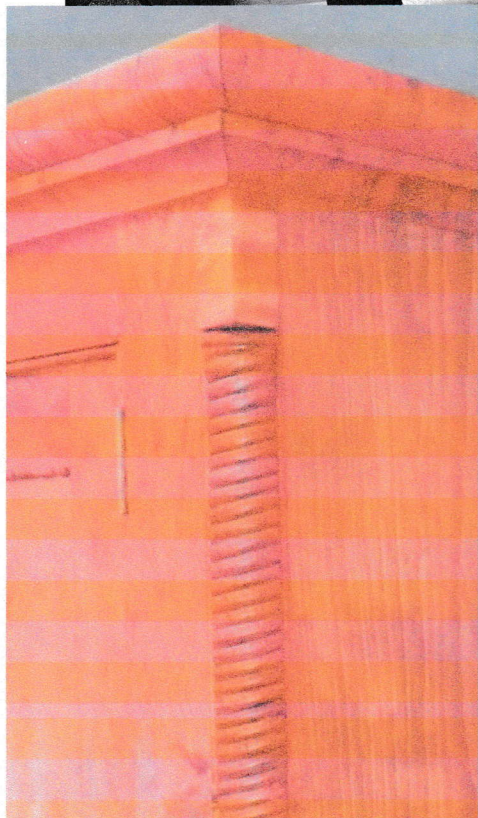
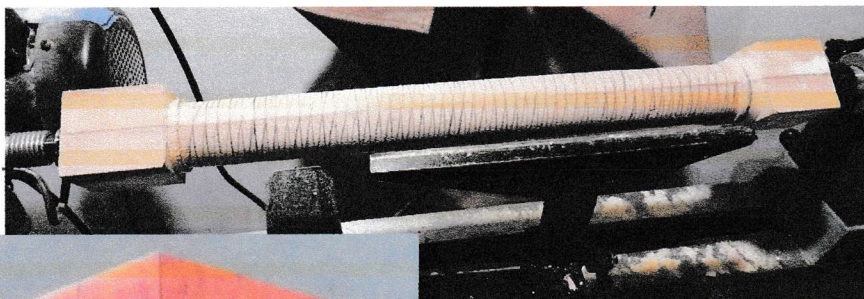
slot mortise-and-tenon joint...three large through tenons and one small example at the top edge...fill the corresponding mortises cut into the cleats.”³

I spent a whole lot of time trying to figure that out. But it seemed to me that using through tenons would be asking for trouble when it comes to



Doan Secretary Desk *(continued-3)*

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The upper cabinet features a two-part cornice moulding and rope-turned quarter columns and capitals. (Note that it also shows the color-matching between the maple and pine.)

ing out the rope turnings as I did creating them. First, I squinted through the magnifying glass to figure out how many turnings there were on each column. Then I divided those into the overall length to get a rough width. The turnings also slant at roughly a 30° angle. All this was drawn over and over on paper until it looked right.

The quarter columns started with the usual process: glue up four pieces of wood with paper in between. Next,

I turned the general shape (round with rings top and bottom). Then I carved the rope turnings while the wood was still on the lathe.

I used my Dozuki saw to start cutting out the valleys, with a piece of tape on the blade as a depth stop. Then a small v-chisel to widen them, followed by a #5/14 gouge to round them over. Last, rifflers and sandpaper to get the final shape. After that, break apart the four quarters to get the carved quarter column.

“Oh yeah, those glass knobs. To me they look like socks on a rooster: a little bit odd.”

Annoyingly, you can't get both quarter columns out of one blank. The rope turnings move down and in on each side. I was hoping to simply turn one upside down, but it doesn't work that way. Two separate turnings are needed.

I did make one dumb mistake while building this desk, by misreading the measurements on the drawer supports, or lopers. As a result, the faces are larger than they should be. It may be possible to re-do them.

Finishing required two different approaches. For the birdseye maple, I used Light Yellow Maple aniline dye from Lee Valley. I made another mistake here, by applying it from a jar that had sat in a cool workshop. Some of the powder had settled to the bottom, so the dye went on a different shade than expected. Since I liked the result,

I stayed with it. But I wouldn't recommend this technique!

The pine was more challenging. I wanted something that would complement the maple and show the grain. After much experimentation and frustration, I used a coat of Wood Kote Danish Walnut gel stain, then wiped on a light coat of Heritage Oak. Finish is multiple coats of a wipe-on Danish oil/polyurethane mix.

Hardware came from Horton Brasses and Lee Valley. The reproduction glass knobs are from a place called The Door Store in Toronto.

Oh yeah, those glass knobs. To me they look like socks on a rooster: a little bit odd. As Reeve explains, “The hardware at that time would have dictated swan-neck bail brasses with rosette posts. But Doan built the desk circa 1830 when the late Regency or Empire styles prevailed. The glass knobs are



Glass knobs were becoming popular in the 1830s. These are reproductions and very close to the originals.

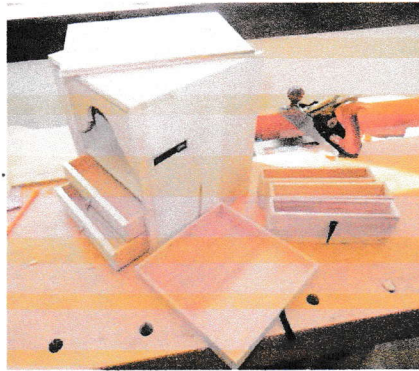
thus consistent with the 1830 date.”⁵

Maybe so, but at first they just seemed wrong. I thought about switching them for something else when no one was looking. But now, I've grown used to them.

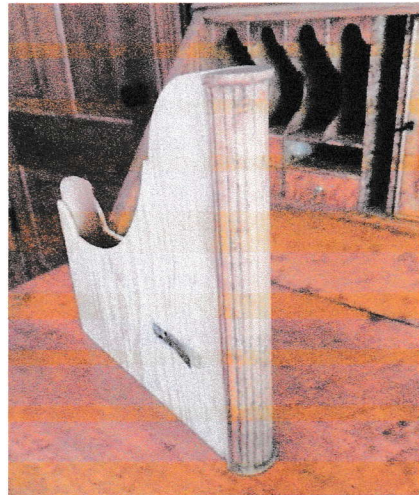


Doan Secretary Desk (continued-4)

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The prospect box has four secret drawers at the back, accessed by removing a sliding panel.



Secret document door, hidden behind a fluted column. Note the care taken in the design, even though this detail is normally hidden. Catch is made of metal, as was Doan's.

This desk has several secret compartments, which are common in this type of furniture, and a challenge to build. Back in 1830, they were basically part of the household security system. Today, they're mostly entertainment for visitors.

This is one of the most complicated pieces I've built. I lost track of the hours spent over the best part of year, trying to decide how to do parts of it. But putting yourself in the shoes of a craftsman from another era, trying to figure out how and why he did things, is one of the reasons we do this.

Some references & notes

Some other books I found useful are Franklin Gottshall, *Provincial Furniture Design & Construction*, pp 63-70 Slant Top Curly Maple Desk, and Glen Huey, *Building 18th Century American Furniture*, pp 192-221, New England Desk & Book Case. Michael Dunbar's *Woodturning for Cabinetmakers* was helpful on spiral turnings. An article by Jeff Headley in *Fine Woodworking* Vol. 211 was a good resource on quarter columns. Also helpful was Lonnie Bird's series on "Building an 18th Century Pennsylvania Secretary," *Fine Woodworking*, Volumes 154-156.

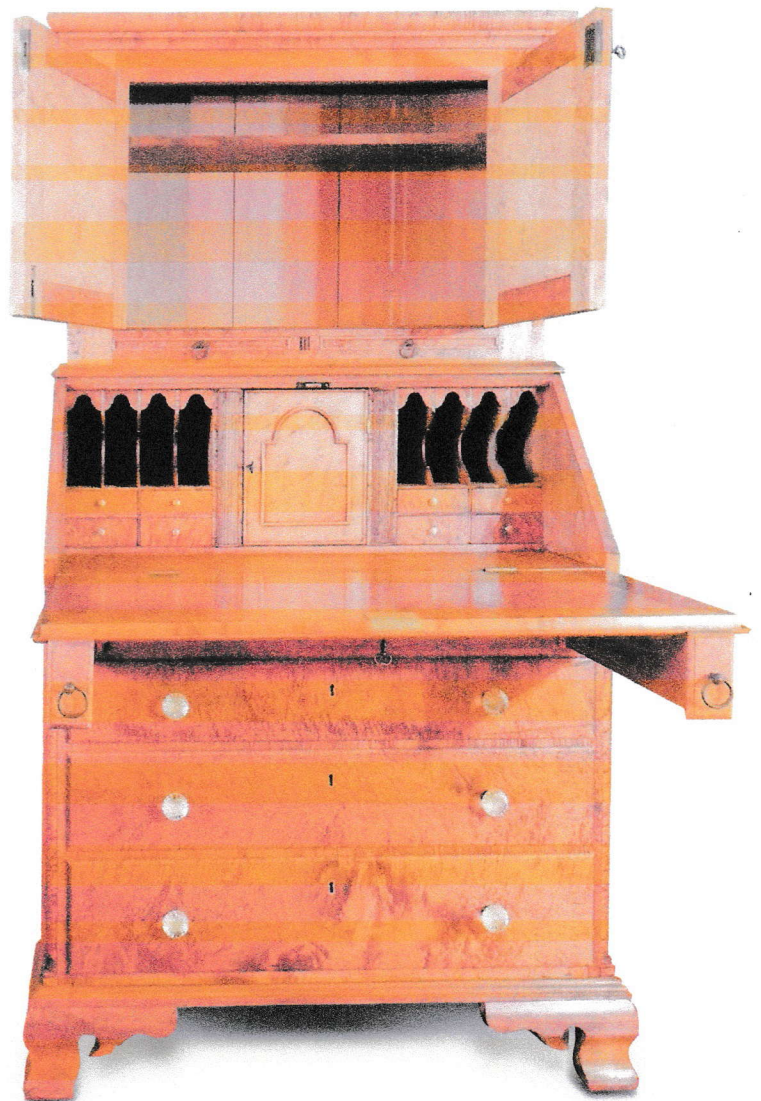
¹ John McIntyre & William C. Reeve, John Doan & Ebenezer Doan, *Canadian Quaker Master Builders & Cabinetmakers*. Kingston Press, 2018. Copies may be purchased through the Sharon Temple Museum online store. <https://www.sharontemple.ca/>

² McIntyre & Reeve, p.66

³ McIntyre & Reeve, pp. 101-102

⁴ McIntyre & Reeve, p. 94

⁵ Personal correspondence with William Reeve



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