

# Conservation of Large Books with Hand-Colored Illustrations

## John Gould's **BIRDS OF EUROPE**

### 1837 in Five Volumes



#### THE PAPER:

While the binding for this book was being treated, I became suspicious of the condition of the paper. Unfortunately, we do not have a suitable test to determine paper strength. In years past, the double-fold test was the norm and was the accepted method for that time. Obviously, it was never ideal. A suitable technique is still needed to determine the strength of aged-paper.

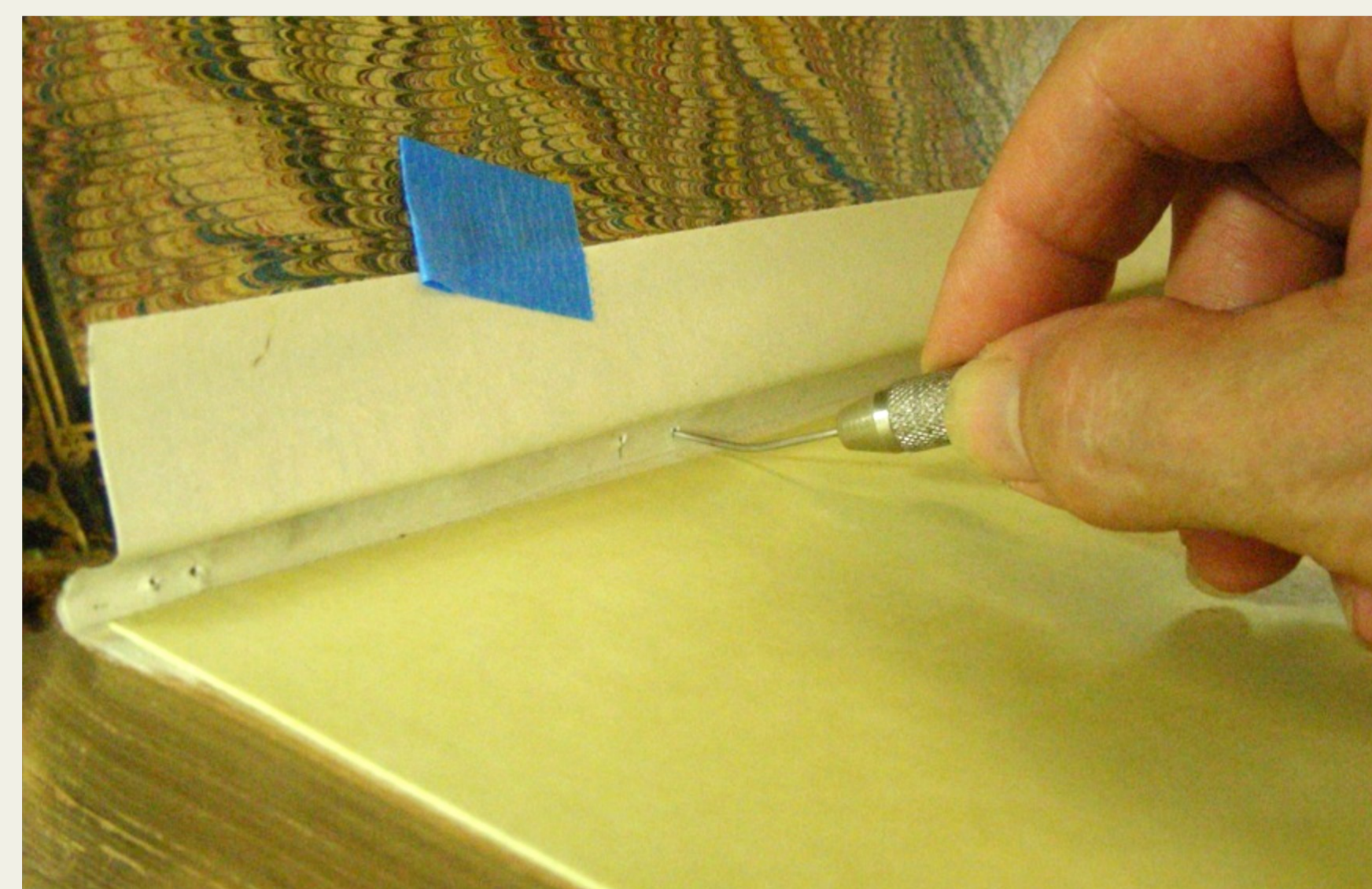
Each volume of Gould's **BIRDS OF EUROPE** has fifty hand-colored illustrations along with extensive text. Unlike other illustrated books that might be disbound, these books should be retained in their original bound format. Books such as this are generally housed in a stable and monitored environment. Some conservators say that is sufficient for long term preservation, but others feel that the paper is still deteriorating, even in those ideal storage conditions.

The **BIRDS OF EUROPE** paper is undoubtedly rag fiber, but it was most likely sized with alum and rosin. The big questions is: will this paper become as brittle as papers made later in the 19<sup>th</sup> century? If so, should we consider a modest chemical treatment as soon as possible? Is there a chemical solution that would neutralize the paper rather than raising the pH too high? These are questions that I continue to ask. At the same time, I wonder about a better method to determine the current strength of paper and predict the strength in the future.

#### THE BINDINGS:

The outer hinges for these bindings were intact, but the inner leather hinges were weak or had failed completely. There seemed an obvious need to reinforce the inner hinges without damaging, or stressing, the original cover leather.

For the conservation treatment, a new cloth inner hinge was mechanically secured in a manner that will be called a "thread staple". A thin, finely woven airplane cotton was first adhered with wheat starch paste. Holes were then stabbed through the shoulder at points where there was no gold tooling on the spine leather. Thread was inserted, much like a staple, and secured with a small amount of paste. The ends of the thread were cut to about 4-mm long, frayed-out and discretely pasted to the leather. The tiny areas of thread should be sufficient to mechanically hold the cloth; these threads were then colored to hide them. The cloth was then covered with a piece of colored Japanese paper to retain the original appearance of the inner leather hinge.



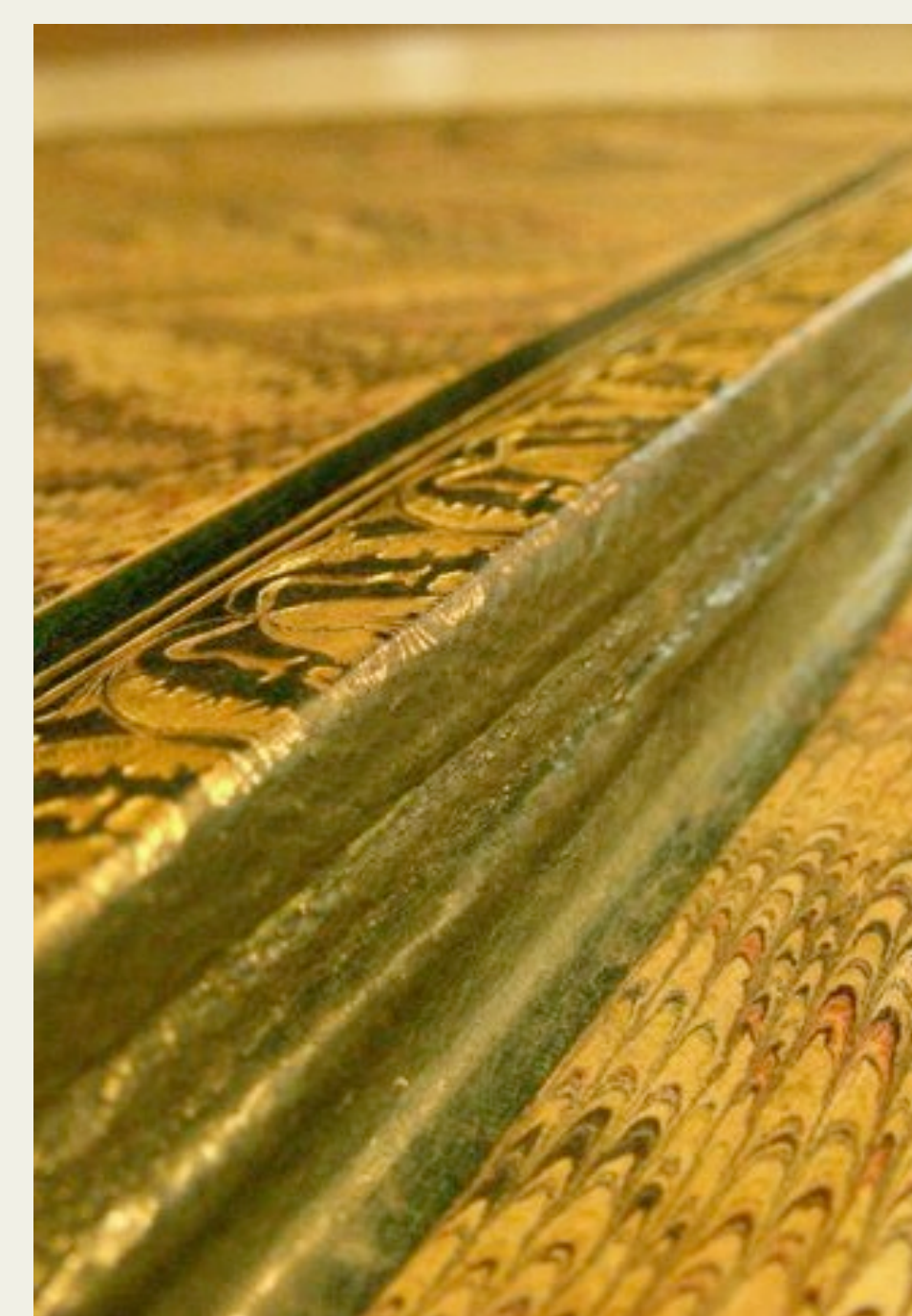
Stabbing to secure the airplane cotton hinge.



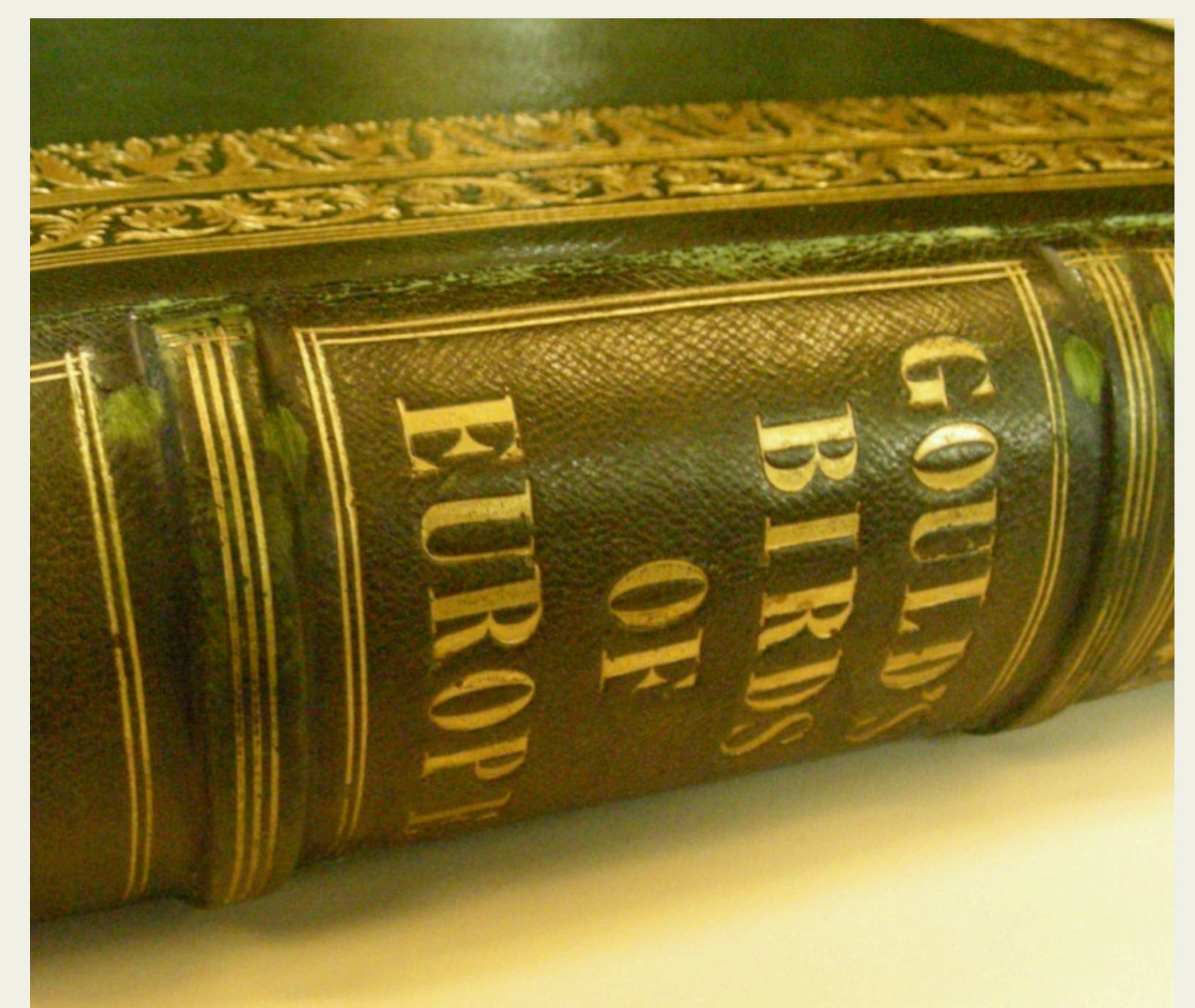
Fraying-out the thread-staple.



Airplane cotton sewn-in.



Inner hinge.



Frayed-out threads adhered.



#### THE BOX:

Each of the leather-bound volumes in Gould's **BIRDS OF EUROPE** is 16 x 24 inches that weigh about 22 lbs. While a standard phase box would have been inexpensive, there were concerns about handling the large flaps. Alternatively, a standard drop-spine box would have required double-wall construction for strength, and the resulting box could easily have weighed 12 lbs. or more. That extra weight seemed excessive, especially in addition to the 22 lb. book. These books needed boxes that were lightweight, yet strong to insure suitable protection. Therefore, thin aluminum sheeting, normally used by building contractors for roofing and window trim, was used in place of binders board for the walls of the drop-spine boxes. This reduced the weight of each box to about 4 lbs., which was much more acceptable.

A complete description of this box was published in the BPG ANNUAL Number 32, 2013.