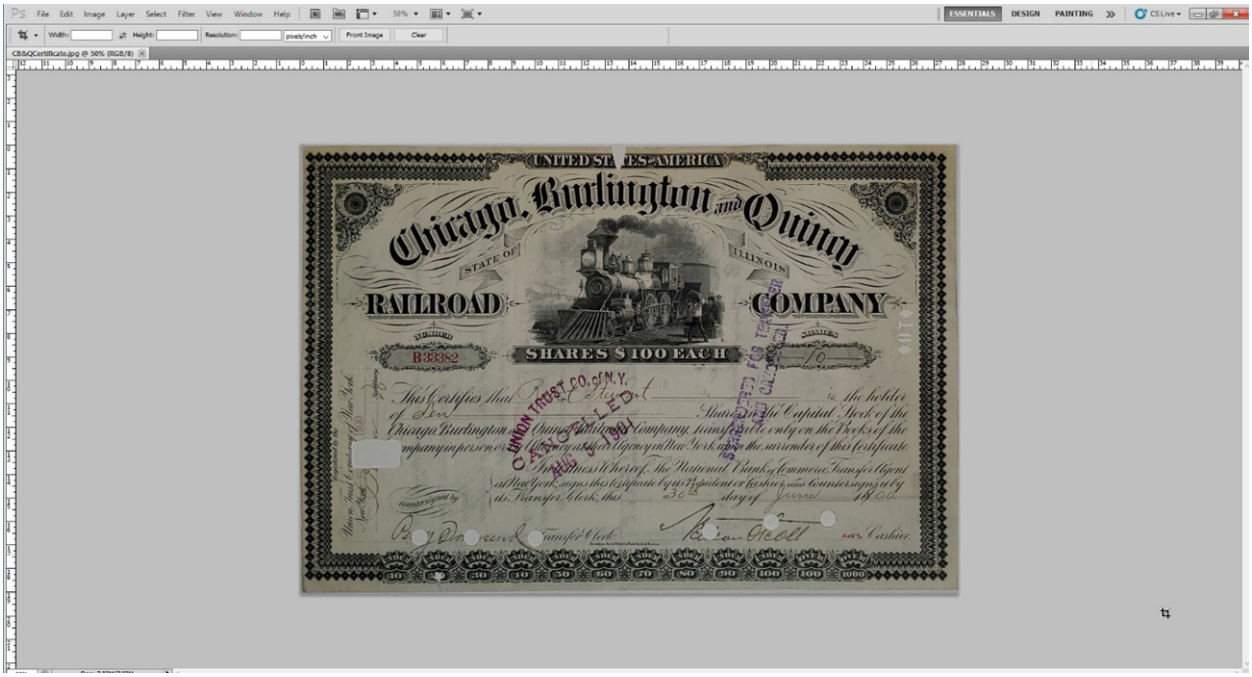
IMAGE MANIPULATION

Fix exposure using Photoshop©

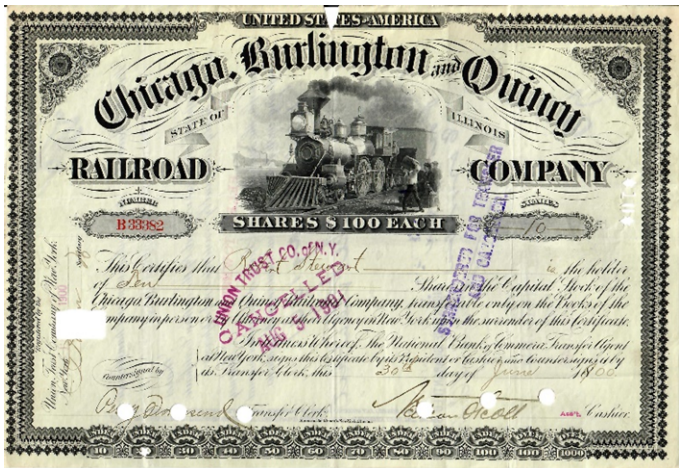
I'm going to show how to improve under-exposed images of certificates using Photoshop©, the most popular image editing software. Scanners usually give decent exposures so I am going to assume you are taking pictures of certificates with cameras, or more likely, smartphones. Even with flashes, photographs of certificates tend to be under-exposed.

If photographing certificates, certificates will always look somewhat misshapen. Use this technique to improve exposures, but see my other tutorials for bringing them back into rectangular shapes.

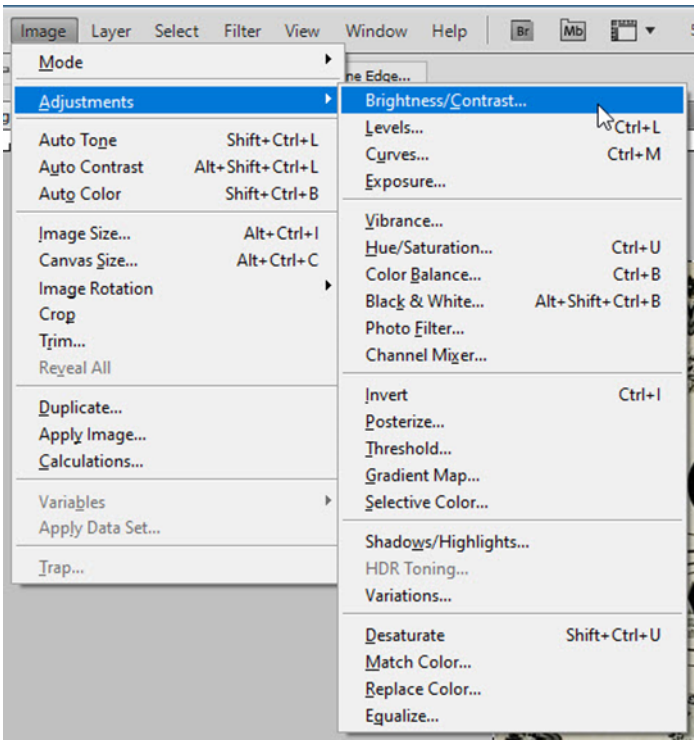
Open an image in Photoshop. To make this example, I placed a certificate on my desk and photographed it with my smartphone. Certificates often turn out too dark because cameras, smartphones included, are expecting to see things that are 18% gray. My desk is only a few percent gray, so the camera under-exposed (darkened) everything to its expected range. This leaves the certificate looking darker and dirtier than it really is.



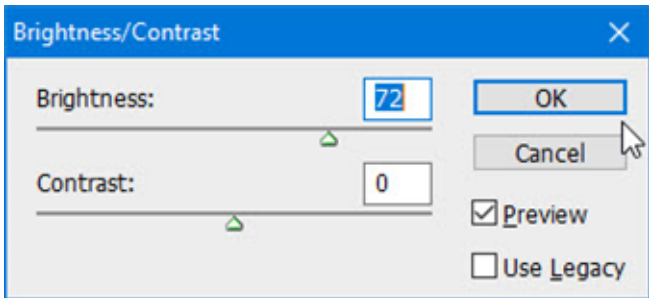
For reference, here is a scanned image of the same certificate. The scanner actually made it look brighter and cleaner than it really is!



The first step is to brighten the image. Select **Image > Adjustments > Brightness/Contrast** from the top menubar.

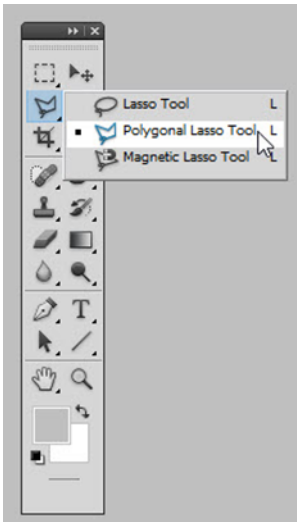


Next, grab the small handle for the Brightness control and slide it to the right to brighten the image.



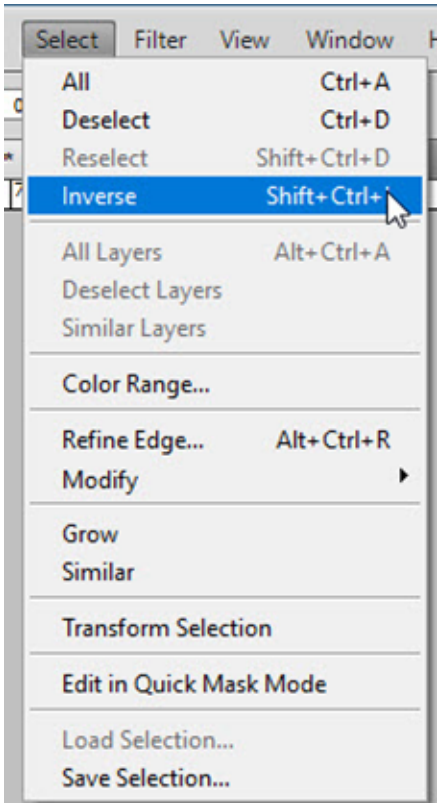
This is a dramatic improvement and quite close to the original. It would not be unreasonable to stop here. However, the left side looks somewhat darker than it should be, so parts of the certificate can be lightened a bit more.

Select the Polygonal Lasso Tool from the Toolbox. If not immediately visible, click and hold down with the left mouse button until a flyout appears. Then select.

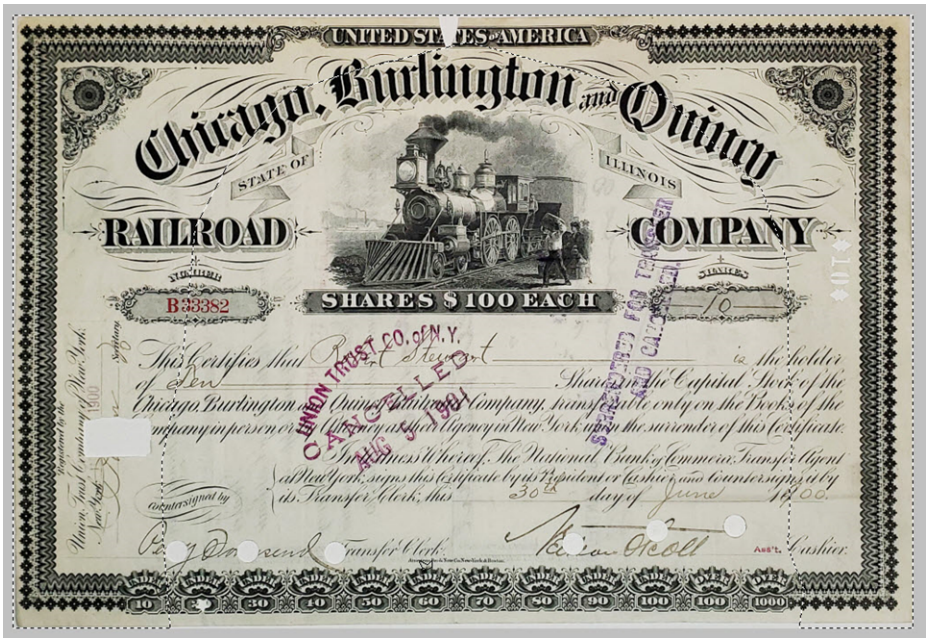


When lightening specific areas around the edges of certificates, it is often easier to first select the bright areas instead. Simply click around the bright area and tap the “Enter” key when finished.

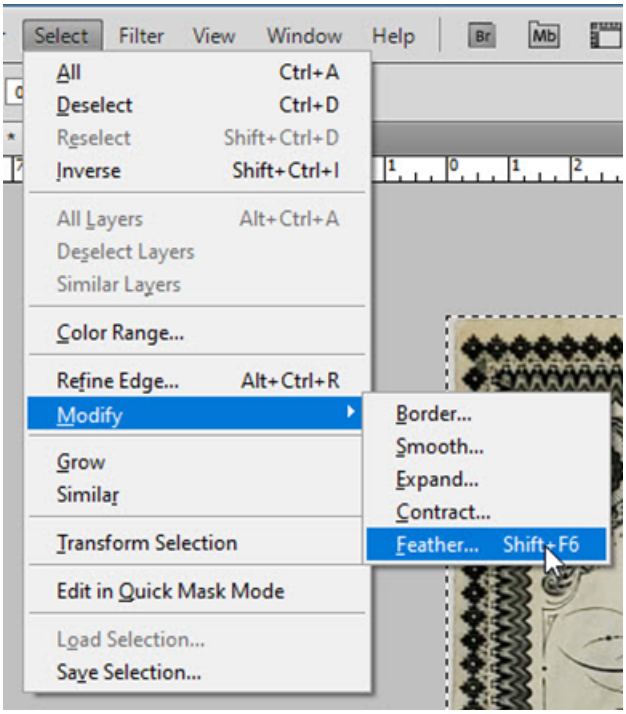
Next, select the inverse by clicking **Select > Inverse** from the top menubar.



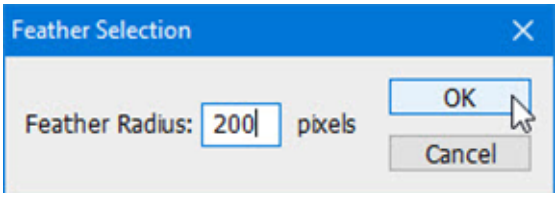
Now only the darker (dirtier) areas are selected.



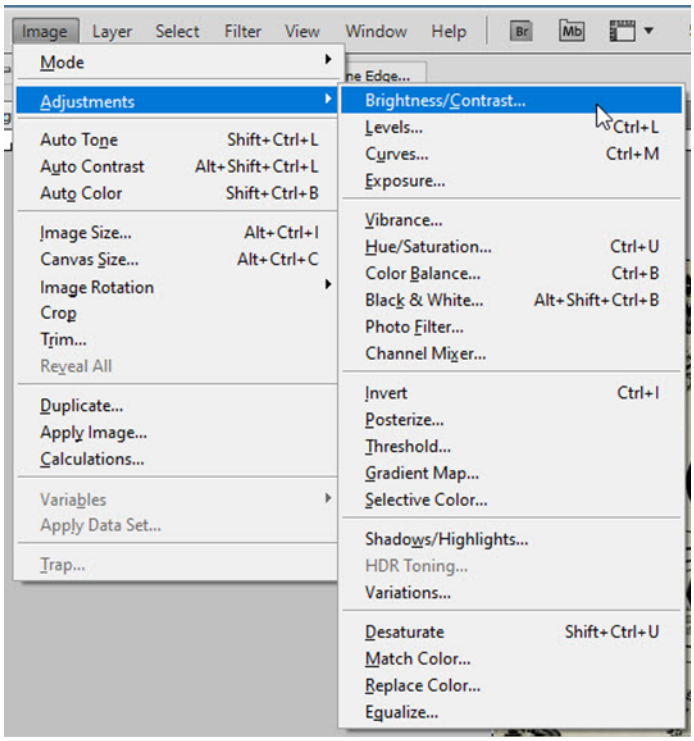
If brightened at this stage, there would be obvious, sharp divisions between light and dark areas. It is better to spread the brightening over a larger area. To modify the existing selection, click **Select > Modify > Feather** from the top menubar.



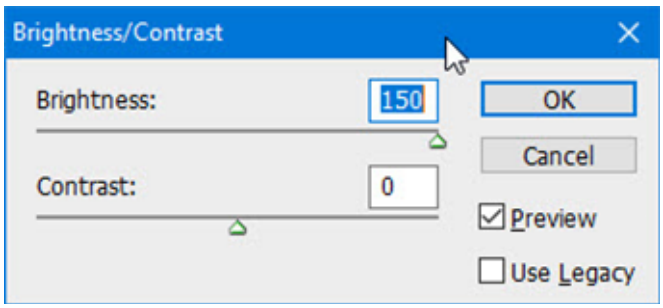
Set the feathering distance to 200 pixels (the widest available in Photoshop.)



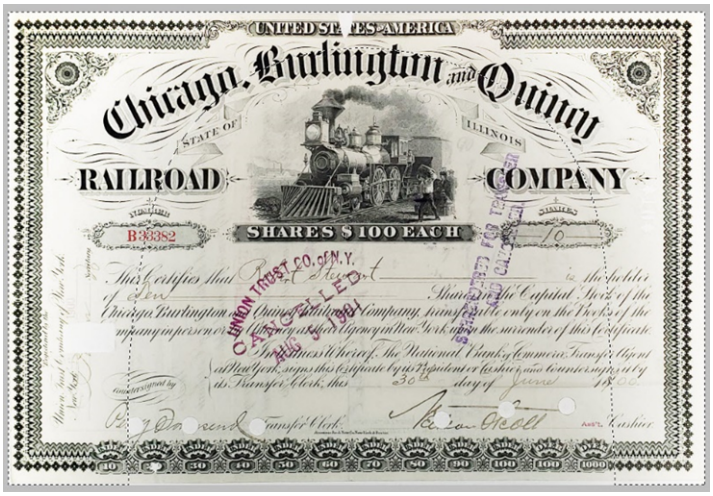
Open the Brightness/Contrast dialog box again.



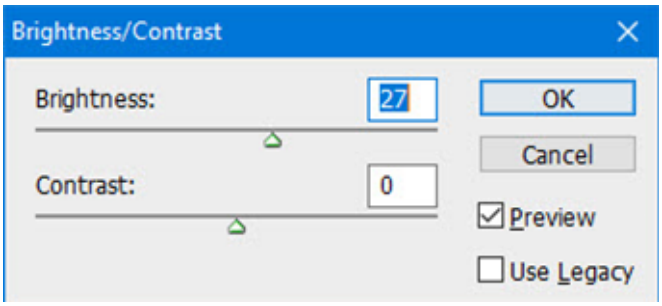
I know it sounds silly, but I have found that it is usually easier to *decrease* brightness to match pre-existing levels than it is to *increase* brightness. To see how this works, run the Brightness slider all the way to the right.



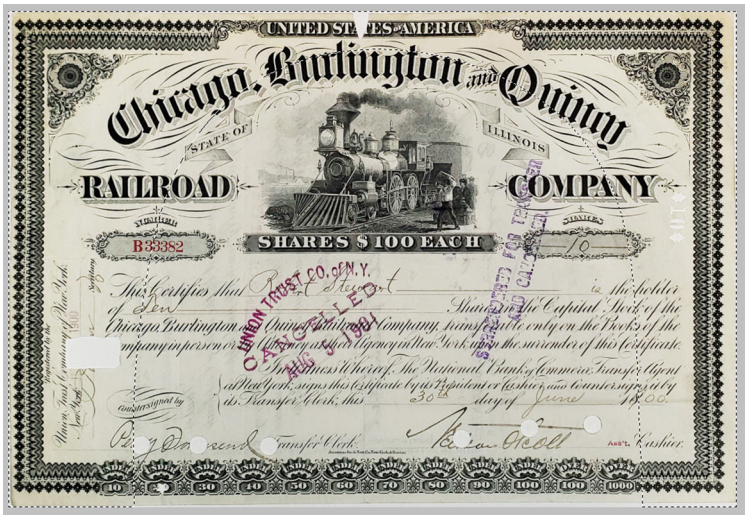
That leaves areas around edges too bright.



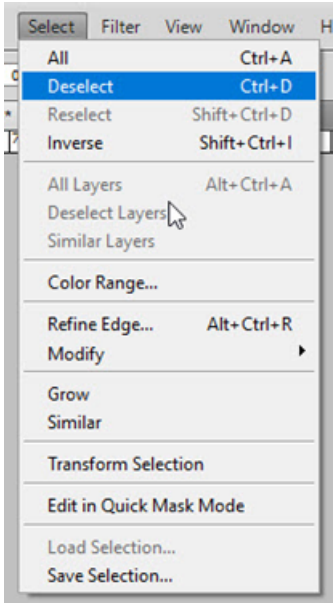
Now, start decreasing the brightness until the brightening is barely evident when compared to the rest of the certificate.



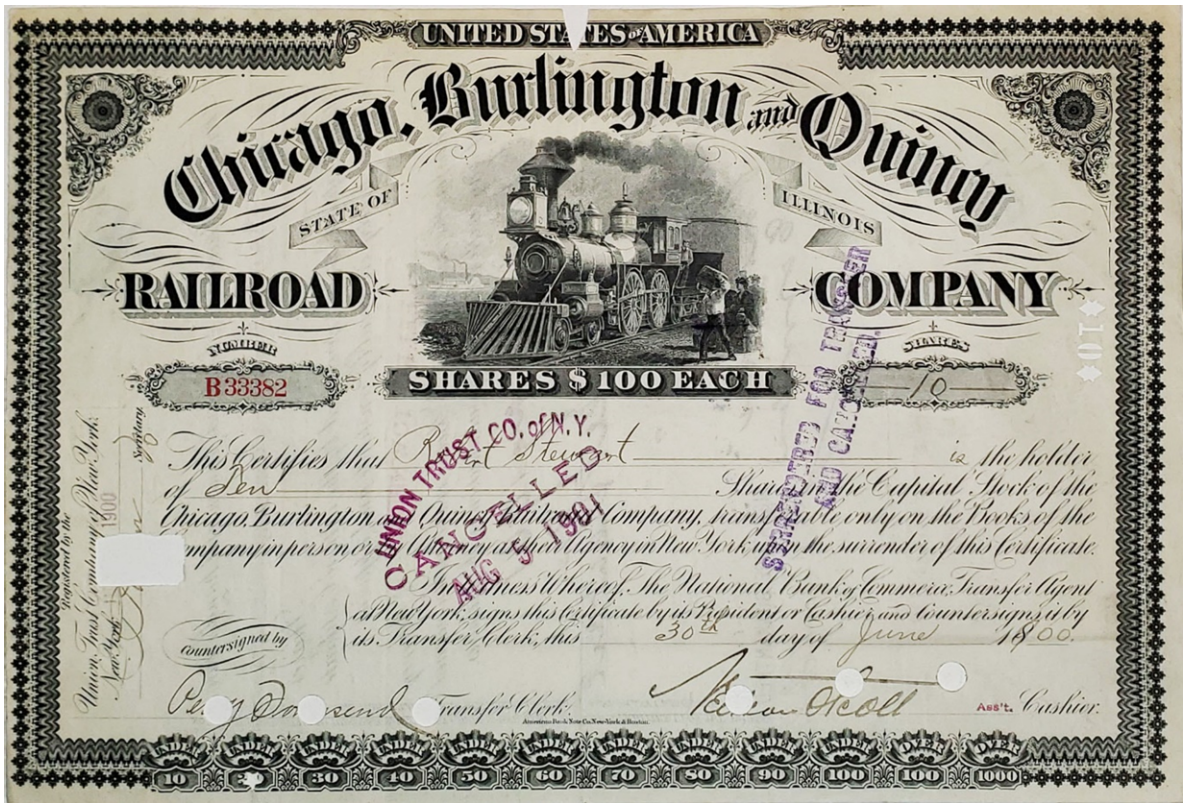
The result is not great, but the certificate is simply not worth messing with too much.



If satisfied with the product, abandon the feathered outline by clicking **Select > Deselect** from the top menubar.



The next page compares the finished product with the initial photograph.


UNITED STATES OF AMERICA
Chicago, Burlington and Quincy
STATE OF ILLINOIS
RAILROAD COMPANY
NUMBER
B 33382
SHARES $100 EACH
SHARES
10
This Certifies that Robert Stewart is the holder of Ten Shares in the Capital Stock of the Chicago, Burlington and Quincy Railroad Company, transferable only on the Books of the Company in person or by Attorney at their Agency in New York, upon the surrender of this Certificate.
Countersigned by
Transfer Clerk
Ass't. Cashier.
Registered by the Union Trust Company of New York
Secretary
UNION TRUST CO. of N.Y.
CANCELLED
AUG 3 1901
SURRENDERED FOR TRANSFER AND CANCELLED
10 20 30 40 50 60 70 80 90 100 100 1000

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