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### **Swiss Invention**



Tin was first replaced by aluminium in 1910, when the first aluminium foil rolling plant, "Dr. Lauber, Neher & Cie." was opened in Emmishofen, Switzerland. The plant, owned by J.G. Neher & Sons, the aluminium manufacturers, started in 1886 in Schaffhausen, Switzerland, at the foot of the Rhine Falls, capturing the fall's energy to produce aluminium. Neher's sons, together with Dr. Lauber, discovered the endless rolling process and the use of aluminium foil as a protective barrier in December 1907.

In 1911, Bern-based Tobler began wrapping its chocolate bars in aluminium foil, including the unique triangular chocolate bar, Toblerone. By 1912, aluminium foil was being used by Maggi (today a Nestlé brand) to pack soups and stock cubes

#### Before aluminium foil

Foil made from a thin leaf of tin was commercially available before its aluminium counterpart. Tin foil was marketed commercially from the late nineteenth into the early twentieth century. The term "tin foil" survives in the English language as a term for the newer aluminium foil. Tin foil is less malleable than aluminium foil and tends to give a slight tin taste to food wrapped in it. Tin foil has been supplanted by aluminium and other materials for wrapping food.

#### Manufacture

Aluminium foil is produced by rolling sheet ingots cast from molten billet aluminium, then re-rolling on sheet and foil rolling mills to the desired thickness, or by continuously casting and cold rolling. To maintain a constant thickness in aluminium foil production, beta radiation is passed through the

foil to a sensor on the other side. If the intensity becomes too high, then the rollers adjust, increasing the thickness. If the intensities become too low and the foil has become too thick, the rollers apply more pressure, causing the foil to be made thinner. The continuous casting method is much less energy intensive and has become the preferred process.

#### **Properties**

Aluminium foil has a shiny side and a matte side. The shiny side is produced when the aluminium is rolled during the final pass. This difference in the finish has led to the perception that favouring a side has an effect when cooking. While many believe (wrongly) that the different properties keep heat out when wrapped with the shiny finish facing out, and keep heat in with the shiny finish facing inwards, the actual difference is imperceptible without instrumentation.

Editor note: having read this I will no longer worry about which side to use!!!!

#### Uses

Packaging Aluminium foil acts as a total barrier to light and oxygen (which cause fats to oxidise or become rancid), odours and flavours, moistness, and germs, and so it is used broadly in food and pharmaceutical packaging.

Insulation Aluminium foil is widely used for thermal insulation, heat exchangers and cable liners. Aluminium foil's heat conductive qualities make it a common accessory in hookah smoking: a sheet of perforated aluminium foil is frequently placed between the coal and the tobacco, allowing the tobacco to be heated without coming into direct contact with the burning coal.

Electromagnetic shielding. Although aluminium is non-magnetic, it is a good conductor, so even a thin sheet reflects almost all of an incident electric wave.

Art and decoration Heavier foils made of aluminium are used for art. Anodizing creates an oxide layer on the aluminium surface that can accept coloured dyes or metallic salts, depending on the process used. In this way, aluminium is used to create an inexpensive gold foil that actually contains no gold, and many other bright metallic colours. These foils are sometimes used in distinctive packaging.

**Geochemical sampling** Foil is used by organic/petroleum geochemists for protecting rock samples taken from the fields and in the labs where the sample is subject to biomarker analysis.

#### Environmental issues

Some aluminium foil products can be recycled at around 5% of the original energy cost although many aluminium laminates are not recycled due to difficulties in separating the components and low yield of aluminium metal.

https://en.m.wikipedia.org/wiki/Aluminium\_foil#The\_first\_aluminium\_foil



How To Clean Silver With Aluminum Foil & Baking Soda:

I tried this myself with my fork and spoon set I got from my Godmother when I was about 1 year old.(Editor)

#### What You Need:

- Aluminum foil
- · Glass dish or aluminum baking dish
- 1 cup boiling water
- 1 tablespoon baking soda
- 1 tablespoon sea salt
- Rag for polishing
- Tongs to remove silverware from boiling water



# 1. Bring water to the boil. When combined with the other ingredients the water will activate the baking soda and start the process of transferring the tarnish to the aluminium foil.

- 2. Add the dry ingredients into the pan and slowly pour in the vinegar. You will cause a slight reaction, so pour carefully! It is possible to clean your silver without adding vinegar, but the vinegar will dramatically speed up the process.
- 3. Pour in the boiling water and then place the silver into your pan, making sure each piece is touching the foil. Try not to let any of the pieces overlap. This should only take about 30 seconds but if you have heavily tarnished pieces you may need to let them soak a few minutes longer.
- 4. Use tongs to remove the silverware and work off any remaining spots by buffing with a rag. Then, look deep into your shiny silver and admire the smartypants that brought it back to its original glory!





# Anybody prepared to try the following?

Using Aluminium foil to whiten teeth. How to prepare this homemade tooth paste?

You just need to mix some baking soda and some toothpaste. Then, grab some aluminum foil, and apply some of the toothpaste on the foil and wrap it around your teeth. Leave the toothpaste on for an hour. If you want to get the best results from this whitening method, then you should use it at least 2 times every week. You will notice that this method will make your teeth perfectly white, and you will be amazed by the results.

## A bit more history...



In Friedrich Schiller's play William Tell, written in 1804, this oath of three men who were representatives from Schwyz, Uri and Unterwalden, takes place in Walter Fürst's house in Altdorf and basically consists of a promise to meet again on 1 August on the Rütli meadow and to bring with them leading and brave men of the three cantons to decide upon a common action. Most notably, among the representatives of Unterwalden was Konrad Baumgarten, a free and wealthy man who had killed, in his own residence, the local Habsburg sheriff Wolfenschiessen with an axe in defence of his wife Itta Baumgarten against the Sheriff's trespass and inappropriate attempts to approach her.

On the other hand, William Tell refused the invitation to come to the Rütli as he was of the opinion that the strong shall act on his own and was skeptical about any common actions. The most famous version of the oath is no doubt that found in the play:

https://en.wikipedia.org/wiki/Rütlischwur#Schiller.

Wir wollen sein ein einzig Volk von Brüdern, in keiner Not uns trennen und Gefahr. Wir wollen frei sein, wie die Väter waren, eher den Tod, als in der Knechtschaft leben. Wir wollen trauen auf den höchsten Gott und uns nicht fürchten vor der Macht der Menschen.

#### Approximate English translation

We want to be a single People of brethren, Never to part in danger nor distress. We want to be free, as our fathers were, And rather die than live in slavery. We want to trust in the one highest God And never be afraid of human power. The Schwurhand is a heraldic charge depicting the hand gesture that is used in Germanic Europe and neighbouring countries, when swearing an oath



in court, in office or in swearing-in. The right hand is raised, with the index finger and middle finger extended upwards; the last two digits are curled downwards against the palm. The thumb is shown slightly curled or raised.

The use of the gesture dates back many centuries. Recruits of the Pontifical Swiss Guard at the Vatican City use the sign when swearing their oath of allegiance to the Pope, in a ceremony performed on 6 May every year since the Sack of Rome in 1527. The use of the three digits is said to symbolise the three elements of the Holy Trinity.

#### In Switzerland

Depictions of the Rütli Oath or Rütlischwur, the legendary founding oath of the Old Swiss Confederacy in the 14th century, show the participants using this gesture The people elected at the Swiss Federal Assembly and at the Swiss Federal Council traditionally use the Schwurhand for their oath of office (and say 'I swear'); however, some people do not do it to avoid religious references .

https://en.wikipedia.org/wiki/Rütlischwur#Schiller.



Performances of the famous play by Schiller that is more than 100 years old, and a wonderful retelling utilising 200 amateur actors from toddlers to sprightly pensioners, not forgetting horses, cows, goats and sometimes even foxes and squirrels. Tell-Freilichtspiele performances run between 21 June to 10 September 2016.

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