



MEISTERWERKE IN STAHL

## THE RAZOR

Nowadays razors – which have developed during history from double-edged bronze scrapers to the modern high-grade steel razors – are being used once again, although for a certain period of time they had been thrust into the background by modern shaving systems. If the user knows in addition how to handle and care for his 'good old razor', then there will be no obstacles for a good shave – in former centuries important for the reputation of a good barber.

First of all we would like to introduce you to the execution and production of a razor which consists of a blade with tang, and two handles.

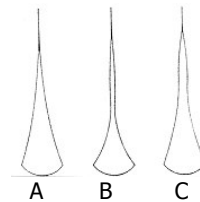
In addition the razor differs from the common knives of table cutlery in having a hollow grinding, offered – depending on the strength- as flat ground (A) to  $\frac{1}{2}$  and  $\frac{3}{4}$  hollow ground (C) to full hollow ground (B). These nuances also reflect quality and price of the razor, the sizes of the blade are  $\frac{3}{8}$ " to  $\frac{5}{8}$ " (inch, e.g.  $\frac{4}{8}$ " = 13 mm), more seldom also  $\frac{6}{8}$ ".

Flat razors are mainly used in hairdressing shops for contour shave and cutting wet hair, very small razors of size  $\frac{2}{8}$ " for the eyebrows. They are also preferred by hospitals for the postoperative shave.

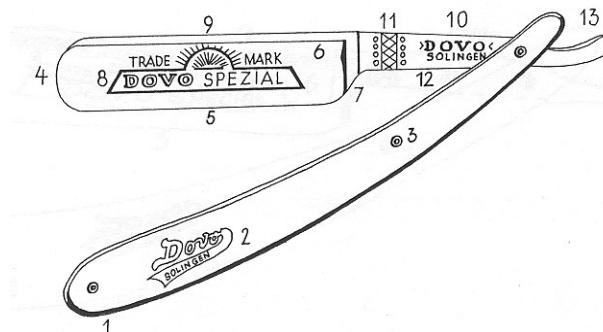
$\frac{1}{2}$  to full hollow ground razors, preferably in the sizes  $\frac{4}{8}$ " and  $\frac{5}{8}$ ", can be used – thanks to their flexibility – for shaving carefully and deep cheeks, upper lip, chin and neck.

Cross Section of Razors  
- degree of hollowness -

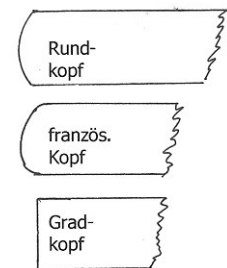
- A flat ground
- B full hollow ground
- C  $\frac{3}{4}$  hollow ground



- ① handle
- ② inlay/screen etching
- ③ center plug
- ④ point
- ⑤ cutting edge
- ⑥ hollow ground
- ⑦ double stabilizing piece
- ⑧ gold etching
- ⑨ back
- ⑩ tang
- ①① decorated tang
- ①② trade mark
- ①③ tang



Usually flat razors are offered nowadays with a so-called French point, but ½ hollow ground to full hollow ground razors are offered with a round point, and besides this – as a further attribute to quality – with a double-stabilising piece (please see sketch page I, point 7) which creates the passage from the tang to the blade step by step. Especially expensive razors which are hollow ground before the point where they are getting thicker again (please see sketch page I, point 8), do have a stronger body in the longitudinal direction. Special razors, e.g. with a square point (contrary to a round point) and concave mirror (instead of a double-stabilising piece) are made mainly for the foreign markets.



Basic materials for good razors are normal steels with a carbon contents of 0.6 % and more which will gain a maximum of hardness, elasticity and resistance to wear when they are hardened and manufactured carefully. The advantages of stainless steels which could even be increased thanks to improved alloys, are that they need less care. Stainless chromium steel razors are therefore mainly used in the flat style in hairdressing shops, although the price is higher.

## **MANUFACTURING PROCESS**

### Manufacturing Steps in the Forge and Hardening Department

The initial forging is made of a small piece of steel, the width is between 20 and 25 mm, the thickness between 5 and 6 mm. The heated steel pieces are then hot forged under the presser of a hammer in the forging die. The excess burrs are removed, then the tang is rolled, the hole for the screw is drilled, and the trade mark is stamped.

The hardening of the forging is of great importance; depending on the quality of the steel it is heated up to 1300°C, and then chilled in special oil. The temperature limits are often crucial, and sometimes the top secret of a skilled hardener. After that the steel undergoes an additional heating process between 200°C and 400°C to obtain a more ductile material. An additional ice treatment, for example of the famous DOVO razor No. 41, at temperatures of -40°C, leads to a further material compression of chromium steels. Constant inspections by means of the Rockwell System assure highest quality.

### Surface Treatment and Mounting

Hollow grinding is made on special machines in about 15 manufacturing steps, the diameter of the grinding stone is relevant for the desired hollowness. Then tang and back are ground and polished (to buff), the hollow side is polished, the back is

polished, and the hollow side is blue polished, the result of which is a proportionate matt finish.

Decoration etching and gold etching are made now, before the razors are mounted, i. e. the two halves of the handle – mostly horn, Mother of Pearl or tortoise shell imitation celluloid handles – are mounted by means of a German Silver nail, so that the razor can be easily closed. Each razor will then be sharpened and examined by skilled workmen. Polishing of the handle, as well as greasing, cleaning, and packing in sheaths are the final work steps.

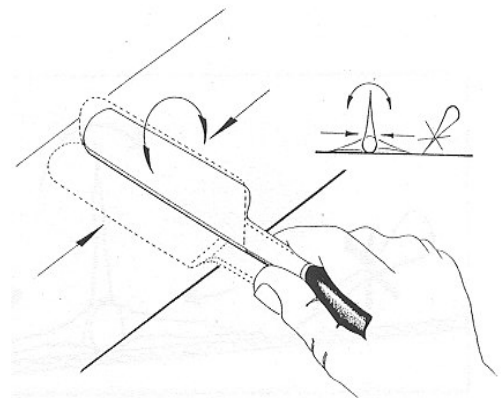
### Care of the Razor

Stainless steel razors do not need a special treatment, but all other razors should be washed with clear water after use, and then be carefully dried. If you do not intend to use the razor for a longer time, then it is recommended to oil it. Also, the razor must not be stored in a humid place.

There is no common rule for sharpening of razors; sometimes it is sufficient to sharpen it at the ball of the thumb, especially if the razors is not used for several days. People, who often use razors, know: the cutting edge is 'growing', meaning that the very fine burr on the cutting edge (which can be seen under the microscope) changes whenever the razor is used, but it finally goes back to its old position and will become very fine again. Nevertheless this burr will wear out after a certain period of time, and then the suitable razor strop should be bought.

### Razor Strops

While flat razors are sharpened with razor strops where the razors can be 'pushed',  $\frac{1}{2}$  or full hollow ground razors are sharpened with a razor strop which can be hung up, made of fine cow hide or of the smooth Russian type leather, sometimes equipped with a hemp tube on the back side which serves to set up the sharp edge in the direction away from the razor. If required, the leather side can be greased with a fine grinding paste (red paste), and for polishing on a separate strop with polishing paste (black paste). Sharpening will be made in a plane angle with the back of the razor on the razor strop; it should be held away from the body in the direction to draw. When changing the direction, the razor should be turned over the back (see sketch), and then again be drawn in direction of your body. When sharpening the razor over the cutting edge it will become round and does not cut any longer, then you can only have it reground.

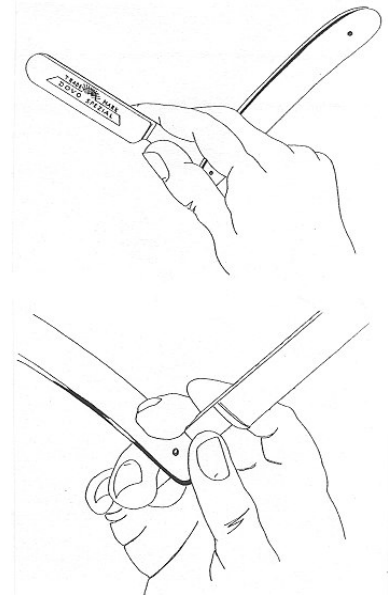


## The Shave

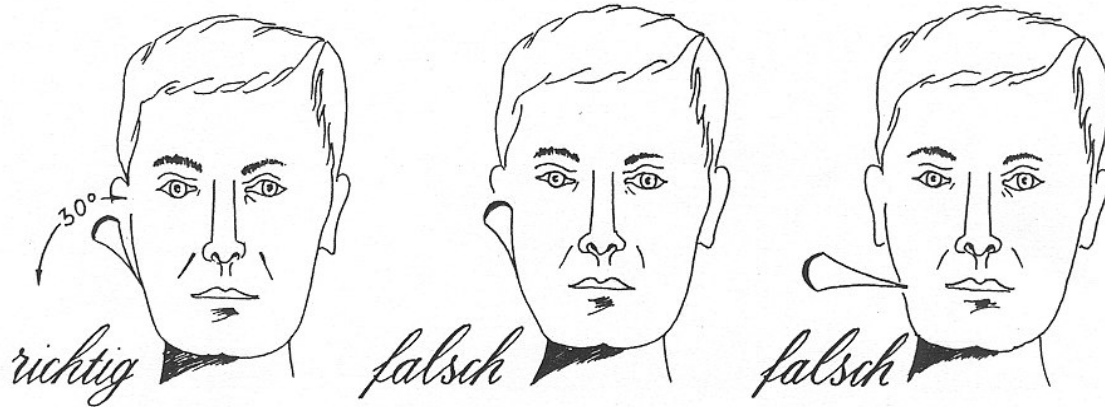
Such a well-cared for razor can now be used together with shaving brush and shaving soap for a good razor shave.

When using a razor for the first time, you should start with the easy and soft parts of the face and should hold the opened razor with thumb and 3 fingers, so that the opened handle shows away from the face, as shown in the sketch.

The smooth skin which has been prepared with a good shaving soap, has to be stretched, and then you should – with an angle of approx. 30° - first shave down with the razor, and after this shave up. If you hold the razor too flat, it will tear the stubble. If you hold it too steep, it will cut the skin. Always shave in the direction of the cutting edge, never lateral (danger to be hurt). Always shave even and hold the razor more steep when shaving dimples and upper lip.



Should the razor have been damaged by falling to the ground, or when closing, it should not be used any longer (for danger of cutting yourself), sharpening will do no good in this case, only regrinding by an expert or in our company.



correct

wrong

wrong