GUIDELINES FOR WET SHAVING
At first, a little bit of technical qualification on execution and production of a straight razor which consists of a blade with tang and 2 scales (handles). Contrary to regular knives, the straight razor has a hollow grinding, which – depending on the thickness – will be discerned as flat ground, half or three quarter hollow ground, or full hollow ground (see sketch page 4). In these increments, quality and price of the straight razor in the blade widths from 3/8” to 6/8” are reflected.

The most common are straight razors in 5/8” (= 16.25 mm). Due to the limited conditioning possibilities in the 17th century, flat ground blades are amongst the primary blade shapes. They were mainly in use for medical purposes as scalpels, later on also for a full or contour shave. Flat ground straight razors of 2/8” width are suitable for the cosmetic shave of eyebrows. Nowadays, hairdressing salons use such straight razors of 3/8” width for thinning of hair (over a comb). Flat ground straight razors are also used for pre-surgery shaves in hospitals. Half or full hollow ground straight razors, preferably in the widths 5/8” and 6/8”, meet the requirements for a thorough and deep shave in the entire area of cheek, upper lip, chin and neck through their flexibility.
THE STRAIGHT RAZOR
SHAPE AND STEEL

Customarily, flat ground straight razors are offered nowadays with a so-called French point, whereas half or full hollow ground straight razors come with a round point, very rarely with a square point. In addition, hollow ground blades have a double stabilizing piece for additional stability (cp. sketch page 5), which builds the transition from tang to blade. Full hollow ground blades especially, with their thinnest part being located between the spine and the ridge (see sketch below) combine major flexibility with major longitudinal torsional stiffness. The coaction of the shape and the fine cutting edge produce a thorough wet shave with a straight razor. Specialties, such as square point and concave mirror, are regional shapes.

Mild steel with a carbon content of 1% and more is considered the basic material for the classic straight razor, which will achieve maximum possible hardness, elasticity and wear resistance with a meticulous tempering treatment. The advantages of the stainless steel qualities are in the lesser maintenance requirements. Nevertheless, rusting cannot be excluded, depending on water quality and care. Stainless chromium steel used to be favored primarily by barber shops. With today’s hygiene standards, razors with exchangeable blades like the »DOVO« Shavette™ are now in use.
The early blank consists of a piece of steel with a 10 mm diameter. The red hot cropped piece is hot formed with high pressure in a forging die under a drop hammer. The excess edge (wing) is cut off in the stamping tool, and the hole for the pin is drilled.

The tempering (hardening and tempering) of the blanks is of importance, which are heated to 810°C or 1040°C depending on the steel type, and is quenched in a special oil afterwards. The temperature limits are often defining, and sometimes also the professional secret of the experienced hardener. The following tempering at approx. 200°C provides the blade with elasticity and durability. Constant controls of the hardness according to Rockwell (HRC) guarantee sharpness and the sustainment of the cutting edge.

In approx. 15 work steps the hollow grinding takes place on special machines where the diameter of the grinding stone is important for the desired hollowness. Following that, the tang and spine are ground, afterwards the fine grinding of the hollow, the wall and the grind is executed. The cutting edge (grind) is ground by hand to the thickness of a razor blade (0.1 mm). During the concluding fine grinding a consistent, color reflecting matt finish is achieved. The engraver’s subsequent work decorates the blade with laser engravings and gold applications.

For the galvanic coating thorough hand cleaning and painting with asphalt varnish is mandatory. With a German silver pin the two handle scales made of waterproof hardwood, cow horn or acrylic (tortoise and pearl imitations) are mounted, so that the blade can be folded into the middle. All straight razors are being sharpened, stropped and checked during a 5 hour process by experienced employees. Final polishing of the handle, as well as cleaning, oiling, and packaging of the razor finish off the production process.
While the wedge shaped straight razor is pushed against a handheld strop, a classic hanging strop made of fine, vegetable-tanned calf leather, is used for half or full hollow ground razors. The hanging strop features a swivel grommet for hanging, and some of them also come with a canvas strap on the backside. The canvas side is for stropping the blade with pulverized dolomite. For the leather side we recommend our fine leather balm (fatty paste) without sharpening properties. The leather balm should be thinly applied by heel of hand or with a cotton cloth, then polished with the cloth. The blade must not stick to the fatty layer on the strop surface. The leather must be clean and undamaged. Fine metal splinters that came off the blade during the stropping will damage the blade and point to a broken off ridge. In that case the razor needs to be re-sharpened. Other razors will also be damaged if stropped on the corrupted strop.

The stropping is executed by applying the cutting edge and the spine of the razor simultaneously onto the tightened strop which provides the angle. The blade must only be PULLED in the direction of the spine - carefully, without pressure, but with constant contact with the leather surface. The blade must only be turned over the spine (see sketch) and the pulled into the other direction. Turning it over the cutting edge would destroy the ridge, and then only grinding by a professional will help!

Maintenance of the Straight Razor

After using it, the straight razor must be rinsed off – preferably with clear, hot water – and thoroughly dried off (without touching the blade with naked fingers). During extended storage it is recommended to oil the blade with a highly fluid oil which is free of acid and resin. The razor should be stored in a dry and well-aired environment. It is important to also clean the handle inside and out of any soap residue, and to also dry the handles on both the outside and inside and all the hard to reach places (such as the area where the blade is mounted which is often overlooked). The razor should only be stored when thoroughly dried. Fingerprints, acids from cleaning agents, and chlorinated water will quickly tarnish mild steel (incipient rust). Disinfectants are equally damaging for steel and handle.

For the stropping of the razor there are two important rules: always strop PRIOR TO THE SHAVE, and between 2 shaves the blade should rest for a minimum of 48 hours (better yet: several days). Wet shavers of the old school know: “the cutting edge grows” which means that the wafer-thin ridge (visible under the microscope) looks like the teeth of a comb. The ridge bends because of the cutting performance during the shave, but will return to its old position due to its elasticity, and regain its wafer-thin ridge.

Therefore it can be sufficient in some cases to whet the razor over the heel of hand PRIOR TO THE SHAVE. The fine ridge dissipates again, and then the razor strop that should be bought with the razor must be used, prepared with the fatty paste.
A razor maintained in such a way is not prepared for an experiential shave. A thorough shave starts with soaking the whiskers, for example during a shower or by applying a wet, warm washcloth.

With the lather – preferably from shaving soaps with a high glycerin content – you will soften up the whiskers with massaging brush sweeps for a few minutes and let them swell.

The novice will at first start with the unproblematic, even zones of the face and will hold the open straight razor with thumb and three fingers in a way that the open scales point away from the face (see sketch).

The shave commences with the grain, very light pressure and constant contact of the ridge with the soaped-up skin, solely with first third of the ridge from the tip.

In an angle of approx. 30° towards the surface of the skin the blade is guided in straight, short strokes across the skin. At the same time, the skin is stretched tight with the second hand, which is always following the razor spine. With that, the whiskers are always stood up optimally, and a “running away” of the skin can be avoided. An evenly scratching sound develops.

If the angle is too flat, the razor will drag the stubble, if the angle is too steep, the razor cuts into the skin, or moves over the stubble without any shaving effect. It is important to always move the blade vertically scratching in the direction of the cutting edge, never turn or pull (risk of injury!), always scratch evenly, and hold the razor a bit steeper at corners, dimples und upper lip. If necessary, give the shave a second go against the grain.

Dropping the razor onto a hard surface, or the edge coming into contact with the scales, usually renders the razor unusable. Therefore it is important that blade is fitted carefully into the gap between the scales when it is folded together. The scales can warp with temperature! If the edge is damaged, mere stropping won’t do, but only a proper regrind und stropping executed by a skilled worker. Please ask your retailer or »DOVO« directly for the repair flat rate.
In the age of extensive sanitation standards, there is a limit to the use of a straight razor at a barber shop. In some cases it is possible to be given a shave after prior consultation, if you bring your own straight razor.

The clean solution is a straight razor with an exchangeable blade, the »DOVO« Shavette™. This razor, made of stainless steel or aluminum, is a barber’s professional tool. The classic double-edge razor blade will be broken in half lengthwise along the middle, and installed in a plastic blade holder. For each new face always clean and sharp.

Due to their lower price, the »DOVO« Shavette™ is also suitable for novices. Preparation for the shave, handling and blade guidance is the same as for the straight razor, and the sharpness can be renewed quickly if necessary. With constant application, the fine edge must be considered here as well, with a maximum of one shave per day.

Types of Razors

When the one-way blade was introduced at the beginning of the 20th century, several types of safety razors already existed. The standard version is the straight closed comb. Razors with an open tooth comb are meant for the removal of longer beards or body hair. The teeth allow for long hair to get through to the blade, which the closed comb would hold down.

One distinguishes between two configurations: The three-piece razor consisting of a top plate, comb and handle, and the two-piece razor consisting of top plate and comb with neck, handle and rotatable key.

The slanted razor serves to stabilize very thin blades (0.08 mm) that were available in the past. An additional effect of the slanted blade is the tendency of the movement in the direction of the blade. This is not hazard-free, but suitable for a very strong beard.

The mechanically most complex type is the adjustable razor. The blade gap adjustment with setting scale varies the distance between the blade and the skin-stretching comb. The system allows the adjustment of the razor for an individual shave feeling from soft to strong.
Handling

With the beginning of the 20th century, safety razors with a classic double-edge blade became the successors of the straight razors for everyday use. The shave is thorough, and handling of the open edge requires a bit of skill and practice, but can be acquired quickly. The safety razor shave is executed with planning, scratching movements vertically towards the cutting edge. Movements in the longitudinal direction of the blade, or turns, can lead to injuries. The lather edge of the comb serves to stretch the skin tight, so all whiskers are reached. The razor’s own weight facilitates the gliding without pressure for a gentle shave. As with a straight razor, it is ideal to move the blade in a 30° angle toward the skin’s surface. How to hold the handle is something to be tried, but with a bit of practice it is quickly done. The versions of the different handle lengths and weights enable the choice of a personal preference.

With the classic models, the blade protrudes a bit at the short outer edges, so that they can be grabbed together with the top plate for blade exchange without letting the blade tumble out accidentally. The individually ground and polished top plates, as well as the blades are subject to variations in dimensions in the range of 1/10 mm. The construction is almost 100 years old and entails markedly higher tolerances than modern blade systems. The shaving results are traditionally good, and embraced by many supporters. The long-term favorable price/performance ratio of safety razors and blades makes those retro products attractive in modern times.

Materials, Maintenance

Most of the MERKUR razors are made of die-casted zinc (top plate, comb) and brass handles. The surfaces are galvatically coated in three layers (copper, nickel, chrome). The model series FUTUR is entirely made of die-casted zinc, with the surface options of matt chrome, glossy chrome, and glossy gold.

Throughout the world, tap water is unfortunately more or less limy, and to some extent, chlorinated. In combination with the often very fatty shaving soaps, the durability of the razor suffers from the contact with those mediums, and the danger of material corrosion increases. Regular maintenance with a soft brush and the occasional degreas- sing with hair shampoo or dishwashing liquid prolongs the lifespan of the metal razors, and removes matt spots.

Preparation of the Shave

A thorough shave requires a meticulous preparation of skin and whiskers. Best after the shower, with firm shaving lather so the whiskers can swell for several minutes. As with soaps, many skin care products are offered for after shave care.

Razor Blades

The MERKUR SUPER blade is a classic double-edge blade made of stainless steel with a platinum coating. There is no fixed period for the durability, as the firmness and density of the whiskers can differ too much. The classic blades in connection with a safety razor are usually more economical cost-wise than system blades. Just like a straight razor blade, the double-edge blade’s cutting edge is very fine and elastic. That is why it must never be wiped off, and should be used for a shave no more than once a day. The ridge needs to straighten up, otherwise it will break off and the blade will become dull quickly. If the shave causes tiny injuries, it is an indicator that the blade is worn out and must be replaced.

TIP: As with all cutting knives, the blades do not contain nickel as an alloying addition, however, nickel cannot be ruled out 100%. Allergy sufferers should test if the brief skin contact with the cutting edge can be tolerated.
AT THE END

These guidelines can handle the subject of wet shaving only rudimentary. There are manifold opinions and various personal experiences. As with many things, there are “many roads leading to Rome”. The best tool is the one that achieves the best result for us personally. To satisfy the curiosity we would like to direct the attention to worldwide wet shaving forums, but also to literature in both German and English on the topic.

Enjoy your research!

We wish you fun with our 'grandfathers' classics!