

HOW A PENDULUM CAN HELP THE SHOEMAKER

BY N. MACBETH

Monsieur Edouard Cabu, of Namur, shoemaker, makes good use of the diviner's pendulum. By this instrument, which intensifies the "sixth sense," Cabu can tell poor quality hides from good. To any skilled diviner, this is not extraordinary. All one needs is special training, from which each given pendulum reaction comes to have a specific meaning. The "method" employed by M. Cabu is the detection of "fundamental rays," discovered more than twenty years ago by the French engineer, Henri Mager. In the case of hides, a ray detected as passing north is produced by a sample of the best quality of hide.

Tanners, shoemakers, and all skin dealers, can gain from M. Cabu's experience. In order that this article may interest non-diviners, let it here be explained that a sample of any substance produces gyrations of a pendulum held over it. The gyration corresponds, and is due, to the sample's qualities. In addition, the same gyration is produced along a line in space departing from the sample. The direction taken by this line, where gyrations continue, is that of the sample's "fundamental ray." A north ray, it has been already said, indicates the best quality of hide. M. Cabu wrote about a series of tests of hides in *Radiesthésie pour Tous*.

Here are the fundamental rays produced by thirteen different samples taken to illustrate his analysis:—

<i>Sample No.</i>	<i>Tanning Process</i>	<i>Part of Whole Hide</i>	<i>Fundamental Ray (Magnetic Orientation)</i>
1	oak bark, unrolled, crude	butt, centre of	N.W.
2	extracts and acid, rolled	butt, nearer belly	S.W. to S.S.W.
3	bark, as No. 1	ditto	W.N.W.
4	extracts (and found acid), rolled	ditto	W.S.W. and S.W.
5	extracts, as No. 4	ditto	W. and S.W.
6	extracts, as No. 4	butt, fore end	W.
7	extracts and bark, ditto	butt	W.N.W. and W.
8	ditto, ditto	ditto	more W.N.W. than W.

<i>Sample No.</i>	<i>Tanning Process</i>	<i>Part of Whole Hide</i>	<i>Fundamental Ray (Magnetic Orientation)</i>
9	more bark than extract, ditto	ditto	W.N.W. and W.
10	extra quality extract, ditto	ditto	more towards N.W.
11	extract extra quality, ditto	ditto	N.W.
12	bark, as No. 1	butt, near the side	N.N.W. and N.W.
13	bark, as No. 1	butt	nearly N.W.

Different qualities are denoted by directions of fundamental ray.

The best wearing qualities, M. Cabu's experience affirms, are indicated by north.

Why do Nos. 1, 3, 12 and 13, though parts of the same hide, radiate differently? Because the tanner's tests have been concentrated on quality alone. But No. 1 cut from the middle near the spine is certainly stronger than No. 12 coming from the side. No. 13 comes from a part near the lower portion of the fore end near the neck, a pleated portion of the skin.

No. 1 is superior to No. 11 because this latter is tanned by extracts of extra quality.

Both 1 and 11 are of good quality. No. 1, which is bark tanned in the old way, is not softened by being rolled through steel cylinders to give the hide a dull shine. There is one side flesh and the other side skin—the crude hide is rough and not rolled in this way.

The extracts are dressings which give skins, after they have been tanned, their final appearance and quality. If only appearance counts, No. 11 (N.W. rays), which has a smoothened surface, will sell better than No. 1 (N.W. rays also); but No. 1 is really superior, for when it is primed during *beating*, it stretches in both width and length, so that one can cut soles and heels smaller than the pattern. A leather is primed when it is neither too supple nor too dry after being soaked a certain time in water, and then it has a certain moisture suitable for the rolling or the beating intended to tighten the pores and give the leather greater durability.

From the tanner's point of view, No. 11 (best extracts used) is the best quality, for it is a fine example of treatment by extracts, the use of which makes the tanning process of much shorter duration than it is when bark is used.

No. 4 (W.S.W. and S.W. on test), looks very much like No. 2 (S.W. and S.S.W.), but the former contains less acid.

The tests appear to Monsieur Cabu to show that a greater quantity of extracts in the tanning process produces a ray more north. The greater use there is of acid during the dressing process, the more the ray veers towards south. (Acetic acid, as vinegar, soaked in blotting paper, to provide a sample of this, produces a south ray).

The samples tested, M. Cabu concludes, show their superiority in the following order (commencing with the worst): 2, 4, 5, 6, 7, 3, 8, 9, 12, 10, 13, 11, 1. But it will be observed from the results recorded on the earlier table that both No. 11 and No. 1 produced N.W. fundamental rays; how, then, know the better? To differentiate between them Monsieur Cabu proceeded as follows: Flat, and at the centre of a Mager coloured rosette, he laid a horse-shoe magnet with both its branches pointing north. Each sample in turn was placed across these branches. When this was done, the better sample gave the more northerly ray. No. 1's wave was then slightly N. of West, but No. 11's was slightly S. of West.

If it is necessary to test a big piece of hide, this is how one proceeds: After the rosette has been laid properly with its violet due north, lay the piece south of the rosette and there "tune" the pendulum over it. Then lay on the hide a horseshoe magnet with its two branches pointing towards north, the axis of the magnet aligned to the rosette's centre. This being done, find the fundamental ray over the rosette in the usual way.

More accurate results are obtained when the rosette has the 360 degrees marked round it, its diameter being as much as 12 inches.

By similar means, M. Cabu adds, it can be seen whether a hide has been treated (so as to weigh more) with sugar, starch, glue, lead acetate, or anything which dissolves out during the damping process. Such an investigation is more valuable for tanners than for shoemakers. If one wants to analyse the extract used for tanning, all one has to do is to let the hide soak, to beat it well, and so extract the liquid. This liquid can then be analysed for the tannin it contains. The extracts used in an industrial tanning process, which are mainly produced in Britain and America, consist of shavings of oak bark and of chemical (not natural) tanning agents. The home tanner is advised by Monsieur Cabu to try using as a tanning agent the bilberry (whortleberry) found on high-lying heaths.