

NEW DISCOVERIES



ALL OVER THE EARTH

Why There's NO NEED OF YOUR BEING BALD

By WILLIAM BRADY, M. D.

BAD air, vanity and laziness are the three common factors of that execrable condition, alopecia prematura, or denudation of man's dome.

Indians living their own life never grow bald. Women following the fashions seldom grow bald.

Professor Sabouraud determined some time ago that dandruff is caused by germs. He identified a minute organism, to which he gave the name of micro-bacillus of Sabouraud, that he found present in practically every case of dandruff.

Professor Lassar, another famous skin specialist, proved that dandruff is contagious, by taking dandruff scales from the head of a student who was losing his hair.

It is a familiar thing for a young husband or wife to contract dandruff after marriage. And that the barber is the chief distributor of dandruff germs and consequent baldness we cannot doubt.

This little micro-bacillus of Sabouraud burrows down the hair shaft, very gradually yet very industriously, until it eventually reaches the hair follicle or root, where it takes up its abode and eats away at the root until the hair becomes first sick and puny and finally loses all vitality, falling out, never to return.

The vigorous work of a few billion micro-bacilli upon a scalp may be compared with the effects of the electric needle, only that the needle does in a few seconds

Science Declares That Your Scalp Will RETAIN ITS HAIR If You Will Only Give It a FIGHTING CHANCE

what the micro-bacillus requires months and years to accomplish.

When we wish to destroy an individual hair or many of them for keeps there is but one known means of safely doing so, and that is the electric needle. This is an ordinary No. 5 or No. 7 jeweler's steel brooch or a platinum needle with a slight bulb at the point, attached to the negative pole of a galvanic battery supplying a four or five milliamperere current.

This, of course, is a tedious process—an operator does well to destroy a dozen to twenty hairs at a sitting. But just the same it is not one whit more efficacious than the micro-bacillus of Sabouraud when the latter agent is kept protected with a suitable hat.

Lack of fresh air, darkness, absence of the actinic or disinfectant action of sunlight, plus uncleanness—these contributing factors aid the micro-bacillus in his ruthless work.

You may note the succeeding stages of the process in any case. First there is an increasing oiliness of scalp and hair—a seborrhea, as doctors call it, an excessive flow of the natural oil secreted by the sebaceous or oil glands which lie about each hair follicle and supply the necessary oil of the hair.

Perhaps if the hat were thrown in the ring and left there the process would go no further, for the sebum or oil itself possesses some germicidal power; but this power is feeble, at best, and hence readily counterbalanced by the contributing factors just mentioned—lack of air, light and cleanliness.

We say nothing here of the interference with nutrition of the scalp by rigid hat bands. Even the derby or silk hat would hardly impair nutrition if it had no roof. Few heads are so regularly spheroid or ovoid as to suffer from the pressure of hat bands; the normal irregularities of the outline of the skull cap suffice to protect the arteries and veins of the scalp from serious pressure.

The second stage of the process is that of dandruff. At first it is an oily, greasy dandruff, seborrhea, oleosa, or steatorrhea, or pityriasis, as it is variously known. It may assume the form of a greasy coating on the scalp. After a time it generally becomes scaly, dry dandruff (seborrhea sicca).

The oily dandruff is usually not so itchy as the dry,



Three Ways of Preventing Baldness.

A—Wear a hat as little as possible so as to give your hair plenty of fresh air. B—If you are a man, never use a comb. C—Massage the scalp systematically with the finger tips.

scour-like dandruff. The dry form of dandruff signifies that the myriads of micro-bacilli are getting in their deadly work upon the scalp—the oil glands are already beginning to weaken under the unrelenting gnawing of the microbes, and it is at this time that the hair begins to come out on the brush.

Not always, though. Some individuals have dandruff in the most annoying degree for years and years and still preserve a fair tatch of hair. But these are exceptions. In the majority of cases dry dandruff is the sure precursor of alopecia prematura, or "drought of the cocoo."

If Lassar's dandruff pomade, above mentioned, was capable of producing baldness in a guinea-pig, then it is not at all fanciful to expect immunising vaccination with strains of the same species of micro-bacillus to relieve dandruff. In practise such relief is common.

By way of prevention of oily or dry dandruff and baldness perhaps the most important item is massage of the scalp. Massage is a sort of almost-as-good substitute for scalp exercise, the human animal having lost his capacity to shake the scalp and wiggle the ears.

Massage may be given with the finger tips as well as with a good brush. This is the proper way to massage the scalp: Place the palms on either side of scalp, push the fingers of the one hand toward those of the other hand, thus raising a roll of scalp between the approaching finger-tips. Go over the entire scalp systematically in this way until it glows with warmth and renewed circulation.

In brushing, use a long-bristled brush and brush vigorously, giving about a hundred strokes to the scalp each day. The brush should be as frequently cleaned as the scalp itself, and after washing the brush it should be stood in the direct sunlight to dry and be sterilized.

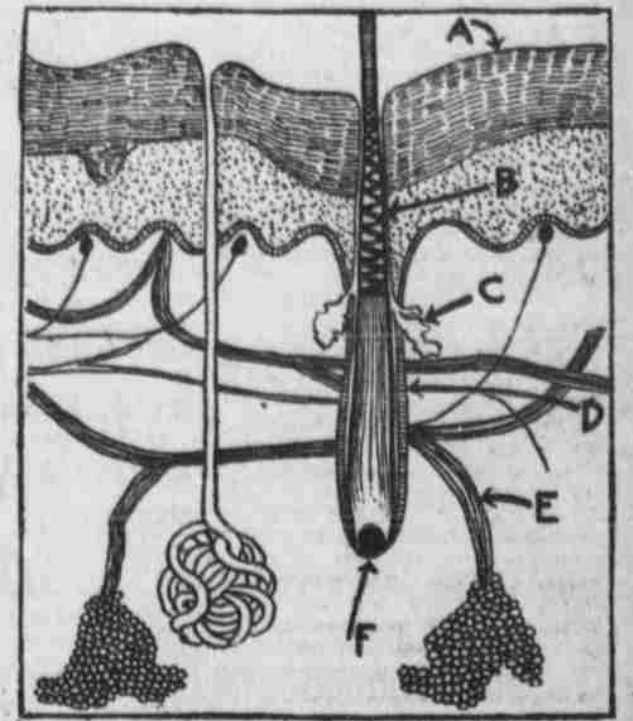
There are brushes with rubber air pads in which the bristles are imbedded. Another excellent brush is one with removable, perforated bristle-base, permitting easy cleansing. As for combs, none is necessary for men's hair; women should use only coarse, rounded-toothed combs, never fine or sharp-toothed combs.

How often should the scalp be washed or shampooed? As often as necessary for cleanliness—every day in some cases, twice a week in others, twice a month in others. Why people should hesitate to wash the scalp, yet never fear a daily bath, is one of those inexplicable mysteries bound up with the "catching cold" delusion. If all soap is rinsed from the hair, and only pure soap used in washing the scalp, and the hair thoroughly dried after the shampoo, and a wee bit of oil, preferably purified petroleum oil (liquid petrolatum) is rubbed into the scalp (not the hair) following the washing, to replace the natural oil removed, there can be no possible ill effect from a scalp shampoo.

There is not one word to be said in favor of most of the various hair remedies barbers recommend. Of course, there are remedies which relieve dandruff, whether oily or dry, just as there are local remedies which will help many cases of acne or other skin trouble. But it is notable that none of these remedies produce any appreciable improvement without thorough massage—they must be patiently and regularly rubbed into the scalp (not onto the hair) daily for periods of several weeks in order to have any good effects, and this indispensable massage of the scalp in itself would, in all probability, accomplish the same results without the aid of the medicament.

However, there is no harm in mentioning one or two of the remedies most highly commended by competent authorities. Sulphur is suggested by Sabouraud in the following form:

Precipitated sulphur.....2 1/2 drams / Alcohol (90 degrees).....2 1/2 drams / Distilled water and rose water.....enough to make 4 ounces



A Hair in Its Home.

A—Surface of skin, B—Hair stalk, C—Oil gland, which becomes weakened by the unrelenting gnawing of the Sabouraud microbes. D—Hair sheath. E—Hair muscle. F—Hair root, which the microbes gradually eat away, causing the hair to die and fall out.

Mix. To be rubbed in between parted hair at night, covering one-fourth of scalp thoroughly each night. Shake the bottle before using.

The one drawback to all sulphur preparations is the somewhat disagreeable odor of sulphur, hard to disguise. And it is insoluble, and hence cannot be sprayed upon the scalp like certain other medicaments. For instance, an alcoholic solution of two per cent salicylic acid or of a similar strength of resorcin may be sprayed forcibly upon the scalp by means of a good atomizer whose downward bent tip is held lightly in contact with the scalp.

If convenience alone is not the chief thing to be considered either of the three medicaments mentioned would be most effectively employed in the form of an ointment which may be systematically rubbed into the scalp by parting the hair here and there, without leaving the hair unpleasantly greasy. A little ointment on the finger-tips and thorough but not too forcible massaging with it.

We grow bald because we want to, not because we have to. We don't give our scalps a fighting chance.

How We Learned to Use ALMANACS

THE first almanacs were of Arabian origin, and reflected the local genius of the people in a very striking way. They served as models in other countries for hundreds of years.

The oldest known copy of such a work is preserved in the British Museum, and dates back to the time of Rameses the Great of Egypt, who lived 1,200 years before the birth of Christ. It is written on papyrus, in red ink, and covers a period of six years. The entries relate to religious ceremonies, to the fates of children born on given days, and to the regulation of business enterprises in accordance with planetary influences.

"Do nothing at all this day," is one of the warnings. "If thou

seest anything at all this day it will be fortunate," is another entry. "Look not at a rat this day," "Wash not with water this day," "Go out not before daylight this day," are some of the additional cautions.

This almanac was found in an old tomb, and is supposed to have been buried with its Egyptian owner when he was converted into a mummy for future explorers to dig up and dissect in the interest of science and literature.

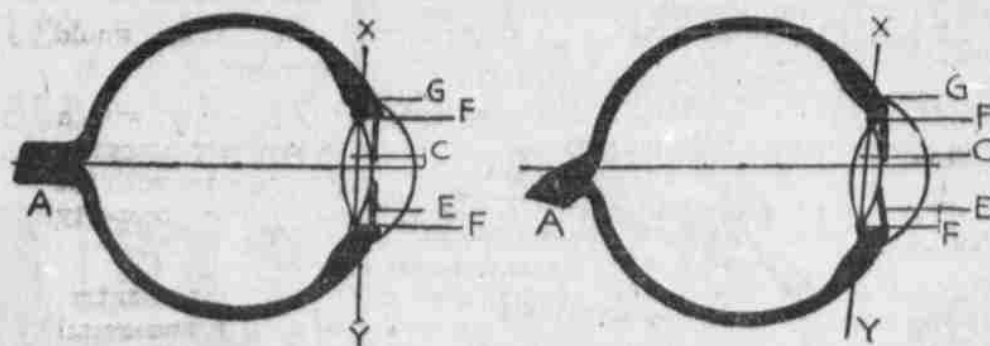
Next after this in point of age among the existing specimens of ancient almanacs are some composed in the fourth century. They are Roman Church calendars, giving the names of the saints and other religious information.

The Baltic nations, who were not versed in papyrus-making, had calendars engraved on axe-helves,

walking sticks, and other articles of personal use. The days were notched with a broad mark for Sunday, and the saints' days were symbolized in various devices, such as a harp for St. David's, a gridiron for St. Lawrence's, a lover's knot for St. Valentine's, and so on. The Saxon almanacs are numerous and contain historical as well as ecclesiastical entries.

It is possible to trace in these curious records all the changes of popular belief and taste. They were prepared to meet the current demand and to constitute a systematic story of what took place in successive periods and how knowledge increased with the revolving years. We owe to them most that we know of the people for whom they were made and by whom they were endorsed.

GOOD for the NERVES to Read in Bed, but BAD for the EYES



How Reading in Bed Strains the Eyes.

On the left, an eye with all its parts and the vertical axis of the lens (XY) in their normal position. On the right, an eye strained by reading in bed. Note how the crystalline lens (C) is slightly tipped, the suspensory ligament (F) strained and the vertical axis (XY) thrown considerably out of plumb. This condition interferes with the proper action of the ciliary muscle (G) and the iris (E) and may ultimately result in injury to the optic nerve.

THERE are few habits out of which the average man or woman gets more real enjoyment than that of reading in bed. When the cares of the day are over and mind and body can both relax is the time when one's favorite book or magazine is most inviting, and an hour or so over its pages is often the best preparation for a healthful, refreshing night's sleep. In fact physicians often recommend reading in bed to nervous patients who suffer from insomnia.

But beneficial as the habit may be to the mind and nerves, it has quite the opposite effect on the eyes.

Oculists have for a long time been puzzled by a peculiar form of eye strain, which is

especially common among college students. Now they have decided that this is a direct result of the habit of reading in a reclining position.

College students are more addicted to this habit than any other class of people. Not only do they enjoy a novel or magazine after they get into bed at night, but throughout the day much of their reading is done while reclining on couches or divans.

Just why this habit is so harmful to our eyes is clearly shown by the accompanying diagrams. The one on the left represents the eye with its various parts in the position nature intended them to be for reading. The axis of the lens is, it will be seen, exactly vertical.

The diagram on the right shows the conditions under which the eye has to work when we read in bed. The crystalline lens is slightly tipped, the suspensory ligament strained and the vertical axis thrown considerably out of plumb. By doing work they were never intended to do the ciliary muscles which control the movements of the eyeball are able, for a time at least, to prevent the blurred, distorted image which would otherwise be the result.

Just as a rubber band after being stretched a long time loses its elasticity and

becomes unable to resume its normal position, so will the ciliary muscles, if called upon for too much of this abnormal work, become lax and unable to properly control the eyeballs.

Eye specialists say that eyes which have been badly strained by too much reading in a reclining position are among the most difficult cases they are called upon to treat. The reason is that such eyes exhibit a certain light reflex, known to oculists as the "scissors movement," that is very hard to deal with.

Why It Would Be Very Hard to STOP EATING BREAD

PROBABLY man would survive if the earth never produced another grain of wheat. But he would not find it easy to get along without this useful grain, for the eating of bread and other things made from wheat flour is a habit to which he has been addicted for nearly five thousand years.

Wheat, it is thought, was first grown in the valleys of the Tigris and the Euphrates. Gradually it spread to the East, and it is known that in China it was cultivated extensively as early as 3000 B. C. Wheat formed the chief food of the people of Biblical times. The term "wheat" is derived from an old English word, "hwaete" meaning white.

The wheat of to-day differs somewhat from that of early history. Through intensive cultivation and cross-fertilization it has reached a high state of perfection.

Wheat is the most widely known of the cereal grains. It is found wherever the white man has penetrated. It is grown on the Himalayan slopes ten thousand feet above sea level; on the great central plain of North America; in the tropical countries of Africa and India. We even find that as far north as the sixtieth parallel of latitude in Alaska, Russia, Germany, France and

England, thousands of acres of wheat are harvested every year.

The fact that wheat can be readily adapted to various conditions of soil and climate makes it the most valuable of all cereal grains.

There are many different varieties of wheat due to the differences of soil and climate, but in general we divide it into two great classes: Winter or soft wheat—sown in the Fall and harvested during the hot Summer months—and Spring or hard wheat sown early in the Spring and harvested late in the Summer.

A grain of wheat is composed of four parts; the husk, which consists of five distinct layers of bran; the cereal layer, a thin membrane enclosing the starch cells, and the germ. During the milling process the bran coats and the germs are removed.

Graham flour is made by grinding the entire grain to a moderate grade of fineness. Entire wheat flour is made by grinding the grain and removing the three outer coats. If the germ were not removed from the flour, the color and the keeping qualities would be affected.

There are twenty-four steps in the milling process. Copyright, 1916, by the Star Company. Great Britain Rights Reserved.

Why So Many SHOEMAKERS HAVE CONSUMPTION

ANY shoe makers so liable to tuberculosis? There is no reason why there should be any more hereditary predisposition to the disease among them than among any other class of workers.

They are not as a rule hard drinkers, and they are well paid enough to afford comfortable homes and sufficient nourishment. Neither can it be said that there is anything about the materials with which they work that facilitates the spread of germs of this disease.

Yet the death rate from tuberculosis among the workers in the great shoe manufacturing centres of England is about 35 per cent in excess of the average for other industries. And English scientists have been making an exhaustive investigation to try to find out why this should be so.

Their study leads them to believe that one reason for the prevalence of tuberculosis among shoemakers lies in the fatigue caused by the constant exercise of care and attention in the execution of a number of finely adjusted and rapid muscular movements. The men who cut the lasts have to bend over their cutting boards for hours at a time with their abdomens and lower ribs compressed and their chests cramped. No attitude could be more conducive to tuberculosis.

Add to this cramped position the fact that shoemaking is sedentary work carried on for long hours in overcrowded factories which are often dark, dusty and poorly ventilated, and it is not hard to see how so many shoemakers contract tuberculosis.

To overcome these difficulties the English investigators urge the passage of laws regulating the lighting, heating and ventilation of shoe factories and prohibiting the dry sweeping which fills the air with irritating particles of dust.

Employers should be required to allow their men to stop work for intervals of fifteen minutes twice a day and play games or take gymnastic exercises in the open air. This, it is believed, would go a long way toward counteracting the harmful effect of the sedentary occupation and the cramped position.

To deal with the actual cases of tuberculosis the novel suggestion is made of an industrial sanatorium where operatives can carry on their trade under medical supervision for such hours as they are able, and earn wages in proportion. As health is re-established working hours and earning capacity would be increased, until finally normal hours could be safely undertaken in many cases and factory employment resumed.

The plan presents the great advantage of teaching the operative how to carry on his handicraft under hygienic conditions.