

BALDNESS

WHAT CAN WE DO FOR IT?

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Reprinted from THE MEDICAL RECORD, *April 7, 1887*



NEW YORK
TROW'S PRINTING AND BOOKBINDING CO.,
201-213 EAST TWELFTH STREET
1887

BALDNESS: WHAT CAN WE DO FOR IT?¹

THERE is probably no one subject in medicine of which the average practitioner is less informed than that of the hair. And yet the subject is important, and everyone should have a clear idea of the resources and limitations of our art in the care of the hair and the treatment of baldness. It is the aim of this paper to point out the varieties of baldness, to throw as much light as possible upon its causation, and to show what and how much may be done in the treatment of it.

The four main varieties of alopecia are: 1, Alopecia adnata; 2, alopecia senilis; 3, alopecia prematura or presenilis; and 4, alopecia areata. The last variety will not be considered at this time, as I have recently contributed a paper upon the subject to the *New York Medical Journal*—in February, 1886.

Alopecia adnata is that form of baldness which is congenital, as its name would indicate. It is comparatively infrequent. An infant is born either with a good crop of long, colored hair which early falls out, to be replaced with light-colored permanent hair, which soon grows darker; or it is born with colorless hair in greater or less abundance, which gradually becomes darker; or it is born with a perfectly bald head. In the majority of cases this last condition is transient, and in a few days or weeks the scalp will be covered with hair. All these states of hair-growth are dependent upon the time when the change of type between the foetal and permanent

¹ Read before the New York County Medical Society, April 26, 1887.

hair takes place. As a rule the change is complete at birth, when we find the colorless hair; if it is delayed until after birth, we have the long, dark hair; if at the time of birth the foetal hair has been shed, but there has not been time for the permanent hair to grow, we have the bald head.

Now all these are normal conditions, and even the last, or bald head, is only to be considered as transient alopecia adnata. But in some cases the hair-growth is delayed for months, and in some of these there is a condition of lichen pilaris present, the scalp being rough and covered with pointed papules. The hair will usually grow in time, though a few cases have been reported in which the hair never grew. Delayed dentition, or even a deficiency of teeth, has been observed in these cases.

The *cause* of this form of baldness is an arrest of the development of the hair. Upon what condition such an arrest depends we do not know. Microscopical examinations of sections of the scalp in cases of inveterate alopecia adnata show either an absolute absence of hair-follicles or an aborted development of them. In some families the disease is hereditary.

As to *treatment*, the most we can do is to attend to the general nutrition of the child and the hygiene of the scalp. Happily in most cases the disease remedies itself. The scalp should be kept free of sebaceous accumulations, and thoroughly washed with soap and water. Should the parents and friends become restive under this expectant plan of treatment, some stimulating hair-wash may be prescribed, such as will be given when we come to the discussion of alopecia presenilis. If lichen pilaris is present, the free use of soap frictions, with the tincture of green soap every day, followed by inunctions with oil, will remove the accumulation of epidermis which clogs the hair-follicles, and thus give the hemmed-in hair a chance to grow.

Alopecia senilis is that form of baldness which occurs in old age, or after the age of forty-five, and is often

preceded or accompanied by grayness of the hair. When this form of baldness begins, it is progressive. Commencing upon the vertex it forms the tonsure, and from there spreads forward so as to involve the whole top of the head; or it may begin anteriorly and spread backward; or the whole top of the head may show a thinning of the hair. When complete the scalp is smooth, oily, shiny, and looks stretched. It is unaccompanied by any disease of the scalp, excepting, perhaps, a slight seborrhoea. The region it affects is that part of the scalp over the aponeurosis of the occipito-frontalis muscle, while the occipital and lateral parts of the scalp are spared. It is always symmetrical.

The *cause* of this form of baldness is a gradual sclerosis of the subcutaneous tissues of the scalp, the retrograde process beginning in the arterial supply to the scalp, a fibrous endarteritis narrowing the lumen of the cutaneous arteries, till finally the capillary circulation about the hair-follicles is obliterated. This causes a lessening of the subcutaneous fat and a narrowing of the meshes of the connective tissue. It is but one expression of that general lowering of nutrition incident to advancing years.

When the scalp is atrophied we can do nothing in the way of *treatment*; there is no cure for alopecia senilis. Prophylaxis may do a good deal in postponing the loss of hair. Of what prophylaxis consists will be shown in the next section.

Alopecia prematura is that form of baldness which occurs before the forty-fifth year of age. It is true that the dividing line is purely arbitrary, but it is convenient, and the age of forty-five is usually considered to be that of man's prime, the top of the hill of life. There are two varieties of premature alopecia, viz., the idiopathic and the symptomatic, each of which deserves separate consideration.

Idiopathic premature baldness begins at any time before forty or forty-five years of age, most commonly

between the ages of twenty-five and thirty-five. Its peculiarity is that it arises uninfluenced by any antecedent or concomitant local or general disease. When it once begins, it is generally progressive. Its course is the same as that of the senile form, beginning on the vertex and proceeding forward; or beginning on the forehead and running backward; or affecting the whole top of the head. It is a process of gradual loss of vigor, and a gradual lessening of the diameter of the hair. The hairs which first fall out are replaced by those of less vigorous growth; these in their turn are shed to make way for yet weaker ones, and so the process is repeated until complete baldness results, no new hairs being produced to take the place of those which are shed. The scalp in the affected region is atrophied, and often bound down to the underlying tissues so tightly that it cannot be slid about as easily as in the normal condition. It differs from senile alopecia in the earlier age at which it occurs, and in usually being unaccompanied by other signs of diminished physical vigor, such as canities, loss of teeth, and dulness of sight and hearing.

The chief *cause* of this variety of baldness is heredity, and everyone has known of families in which the fathers and sons for many generations have become bald at an early age. This is due, according to Pincus (*Berl. klin. Wochenschrift*, 1883, xx., 645), to the fact that in certain families there is a tendency to an early induration of the connective tissue under the aponeurosis of the occipito-frontalis muscle, the meshes of which, becoming progressively lessened in size, gradually draw the scalp down upon the underlying tissues, and the hair-papillæ, becoming more and more pressed upon, are at first lessened in diameter and at last completely obliterated.

Improper or deficient care of the scalp and hair is another cause of early baldness, or, at least, hastens its advent in those predisposed thereto. It is a very common practice for men to souse the head daily in water, and as Ellinger (*Virchow's Archiv*, 1879, lxxvii., 549) has noted

this habit in eighty-five per cent. of his cases of baldness, it is probable that it is an important etiological factor. Thinkers and brain-workers are very often bald. Eaton (*The Popular Science Monthly*, October, 1886) has recently upheld the thesis that the coming man will be bald and toothless. He found by actual count that baldness was far more prevalent among the intellectual and educated classes than among the uneducated. Thus in the audiences attendant upon churches and operas in Boston, from forty to fifty per cent. of the men were bald; while the percentage was only twelve to twenty-five among the crowds visiting cheap museums and prize-fights. In active intellectual effort the circulation of the head is increased, and the scalp sympathizes and becomes warmer than usual. This increased warmth of the scalp in thinking may operate in the same way in the production of baldness as does the wearing of tight, unventilated hats, which sweat the hair more or less. Stiff hats may cause baldness by compressing the arteries that supply the scalp. Thus F. A. King says (*American Journal of the Medical Sciences*, 1868, April, p. 416): "Baldness of the vertex is due to compression, by stiff hats, of the anterior temporal arteries in their course over the frontal protuberances, and of the occipital behind. The reason why baldness occurs in different places in different individuals is probably due to differences in the shape of the head. The little tuft of hair often observed on top of the forehead is nourished by the two supraorbital arteries which escape pressure by passing over the forehead in the slight concavities between the frontal eminences." The existence of this little island or tuft of hair depends more likely upon its being located over the belly of the occipito-frontalis muscle, and not over its tendon.

That women do not become bald so often as men is probably because they preserve the cushion of fat under the scalp longer than men do. Pincus says that their comparative exemption is due to the fact that in them "the

spaces between the connective-tissue fibres in the deeper and middle layers of the scalp are much larger than in men, the skin of women during their life preserving more of the characteristics of the skin of children." Other reasons for their comparative freedom from baldness are given, such as: Because they do not wear their hats as much as men, neither are their hats so close-fitting nor made of so impermeable materials; because they give more attention to the care of the hair than men; because they seldom wet their heads; because they are not so abundantly covered with hair as are men, and therefore have less drain upon the hair-forming elements; because their hair is less often cut. Of all these reasons those of most weight are the preservation of the subcutaneous fat and connective tissue, and the greater attention paid to the scalp.

The *treatment* of idiopathic premature baldness is mainly one of prophylaxis and of hygiene. Though hosts of remedies have been proposed from time to time, and more or less vaunted, I am inclined to believe that due attention to the proper care of the scalp and to the general hygiene of the body is more reliable than any so-called remedies. Unfortunately, men who most often are bald are least inclined to give the requisite time and trouble to the care of the scalp, and therefore our results are not as good as they should be. Women, though less frequently bald, are willing to give attention to their scalps, and with them our results are better.

Prophylaxis consists in giving early and proper care to the scalp and hair, and this especially in families in which baldness is markedly hereditary. Prophylaxis should be begun at the birth of the child in such families and continued throughout life. The proper care of the scalp consists in keeping it clean by an occasional shampoo of soap and water, borax and water, or some such simple means, and in brushing and combing the hair, and in the avoidance of all things that can harm the scalp. The shampoo need not be repeated oftener than once in

two or three weeks, and whenever the scalp has been washed it should be carefully dried, and some simple unctuous substance applied, such as vaseline or sweet-almond oil. Women should dry their hair by sitting before an open fire or in the sun, and should not dress it until entirely dry. The first shampoo the baby gets is to rid the scalp of the vernix caseosa. This should be most carefully done, without the employment of force, the sebaceous plate having been thoroughly soaked with sweet-oil before the attempt to wash it off is made. After it has been removed the infant's scalp is to be oiled daily until the hair is growing nicely; this is done to guard the tender scalp from injury from atmospheric and other causes. So soon as the hair is grown the scalp only needs an occasional wash to keep it clean, unless there is some sebaceous concretions, when that condition is to be treated.

The hair should be thoroughly brushed and combed daily, not in the careless way in which it is done by most people, but systematically for some five or ten minutes, and with vigor sufficient to make the scalp glow. For this we need a good brush with long, moderately stiff bristles, set in groups widely separated from each other. Such a brush will reach the scalp and brush out all dust. A comb with large, smooth teeth, set wide apart, should be used with the brush to open up the hair to the air; first a stroke of the comb and then of the brush. After the systematic brushing the stiff brush should be laid aside and a softer one used to assist the comb in parting the hair and to polish it. This operation of brushing is rather difficult for women, and most women merely employ the comb. But the stimulation caused by the brushing is very valuable and should be insisted on.

What *not* to do is of nearly equal importance with what to do, in the care of the scalp. We should not allow the use of pomades on the healthy scalp, as they are quite unnecessary if the hair is properly brushed, and by becoming rancid are apt to irritate. The daily

sousing of the hair with water should be positively interdicted. Women should not use bandoline or the like sticky substances; should not pull and twist the hair in all sorts of unnatural positions; should not scorch it with curling-irons and hot pipe-stems, nor smother it under false hair. The hair needs light and air for its growth, and will not endure forever the pulling and twisting which fashion demands of its votaries. Men should not constantly wear close-fitting hats or caps. If their avocation requires their heads to be covered, they should wear ventilated, easy-fitting hats. Working under hot artificial light should be avoided, so that the head will not be sweated. Withal, the general condition of the physique should be maintained at as high a standard as possible by exercise and moderation in all things; and worry and anxiety of mind should be combated by the cultivation of a more cheerful habit of thought.

When the hair is falling the care of the scalp, as just indicated, should be continued, or, if not already practised, begun. In addition, local stimulation must be employed. Some remarkable results in making hair grow by hypodermatic injections of pilocarpine have been reported in the medical journals. This may be tried. I have found the drug more useful in alopecia areata than in ordinary alopecia. We know that jaborandi increases the circulation of the skin, and it would seem rational to suppose that in some cases of baldness, dependent upon malnutrition of the papillæ, it might do good. Pincus, who has devoted many years to the careful study of baldness, advises the application to the scalp for from two to five minutes, on two to four successive days, of a wash of

Bicarbonate of soda	4 parts.
Distilled water	180 "

M.

rubbing in one or two tablespoonfuls of it with a soft hair-brush or sponge. Then a pause is made for as

many days as the wash was used. On the first and second day of the interval between the applications some oil is to be rubbed into the scalp. This treatment is to be continued for a year, and if the disease is then progressive, stronger remedies are to be used. As we will have occasion to speak of a number of stimulating hair-washes when we discuss the treatment of symptomatic baldness, it will not be necessary to mention them in this place.

As a rule, the treatment of idiopathic alopecia prenilis is unsatisfactory, and we should not encourage our patients to expect to see the condition of their hair improved to any great extent under one year, at least, of treatment. But if due attention is given to the care of the scalp and hair, the fall of the hair can be checked in many cases, and that is well worth the trouble it costs.

Symptomatic premature alopecia.—By this term is meant baldness occurring before the age of forty-five, and arising from some accompanying local or general disease. It has four varieties, viz.: 1, Alopecia furfuracea or pityroides; 2, alopecia syphilitica; 3, defluvium capillorum; and 4, alopecia follicularis.

Alopecia furfuracea is that variety which is due to dandruff—a seborrhoea, or pityriasis capitis. The dandruff may be in large amount, so as to form cakes of fatty matter on the scalp, or it may be slight, in the form of thin, easily detachable scales, which fly off from the scalp and fall upon the coat-collar like snow. This variety of baldness is met with in all ages, but is most serious between the twentieth and thirtieth years of age, and is by far the most common of the different kinds of alopecia. It has two stages; during the first there is a good deal of dandruff, and the hair is dry and falls out slightly. This stage lasts from two to seven years. Then the second stage begins, when to the dandruff is added a rapid fall of the hair. The location of the baldness is the same as in the preceding forms, though it affects most often the whole top of the head. The course of the disease is

progressive and more or less rapid, the hair becoming gradually thinner both as to quantity and diameter, till at last complete baldness results. With the increase of the baldness there is a continuance of the dandruff, until the hair has nearly all fallen out, when the dandruff lessens or disappears.

Alopecia syphilitica next claims our attention. It occurs in the early stage of syphilis most often, but may occur quite late in the disease. Syphilitic exantheas may be present on the scalp and body, or the baldness may be the only symptom of the disease. When it is the result of the syphilitic cachexia we will frequently find more or less dandruff, and there will be a general thinning of the hair, giving the head a peculiar look, which may be likened to the effect produced by taking a pair of dull shears and cutting the hair away in a very irregular manner, so that the head will look ragged. The head is not completely bald in any extended area, but here and there over the whole scalp are irregular, partially denuded patches. Other regions besides the scalp may be affected, the broken arch of the eyebrows being characteristic. Besides this, which may be considered the characteristic species of syphilitic baldness, we have disseminated bald spots of cicatricial tissue due to the presence of syphilitic deposits about the hair-follicles, which have undergone absorption and caused destruction of hair-follicle and scalp tissue. This latter variety belongs rather to the category of alopecia follicularis.

Defluvium capillorum is the variety of baldness which follows acute diseases, especially fevers, or occurs in the course of some cachexia, such as mercurialism. The most common form is that which follows fevers. Usually the hair does not fall out till after convalescence has begun, and then it will be very rapid, the hair coming out by handfuls at times, and the whole scalp is affected. As a rule it does not cause absolute baldness, though in some rare cases all the hair may fall from the body, as in a case of alopecia areata maligna.

Alopecia follicularis is that variety of baldness which is due to local lesions, such as the syphilides, and the parasitic disorders. The appearances presented will vary with the cause. When due to pustular diseases, such as impetigo, the patches are not larger than from the size of a silver dollar to that of the palm. When due to some diffuse inflammatory disease, such as erysipelas, the bald patches are quite large and irregular in shape, and the scalp is hyperæmic. When due to favus or ringworm the hairs are altered, becoming lustreless, dry, and split; in ringworm they are often broken off near the scalp. The bald spots of favus are covered with thick, mortar-like crusts, or are smooth, cicatricial, and of a peculiar red color. In ringworm they are covered with scales, and sometimes crusts, which are not so thick as those of favus.

The *causes* of alopecia *prematura symptomatica* are manifold. We have already mentioned seborrhœa sicca, syphilis, fevers, impetigo, erysipelas, and parasitic diseases. Besides these may be mentioned violent shocks to the nervous system, mental distress, parturition, lupus vulgaris and erythematosus, lichen ruber and scrophulosorum, lepra, and other cachexiæ. The baldness following fevers, and with syphilitic and other cachexiæ, is due, in most cases, to seborrhœa, but may be purely a nutritive trouble, the hair-bulbs being poorly nourished, the hair becoming loose and falling out. The baldness accompanying or following the pustular and ulcerative diseases is due to the destruction of the hair-follicles. The baldness following upon the abuse of mercury, excess in venery, and intemperance, is due to their damaging effect upon the constitution of the patient. Anything which impairs the full vigor of a man may secondarily contribute to the production of baldness, especially if he have a predisposition thereto. This predisposition is an important factor in all cases of alopecia *furfuracea*. We often meet with people who have had dandruff for years

without alopecia; but in many subjects dandruff does cause baldness.

As far back as 1874 Malassez¹ and Chincholle² described a parasite as the cause of pityriasis capitis and of the baldness following it. But Bizzozero³ has recently shown that spores, identical with those of Malassez and Chincholle, are found quite generally upon the normal human scalp. Lassar and Bishop⁴ believe that alopecia furfuracea is contagious, and is frequently transmitted by barbers' brushes and combs. They explain the comparative immunity of women by the fact that they are less exposed to infection at the hands of the barber. Their experiments with the scales taken from the scalp of a man who was losing his hair rapidly, and which they made into a pomade with vaseline and rubbed upon the back of a guinea-pig and a rabbit, in each case producing baldness, are interesting, and seem to prove their thesis. They require and deserve repetition.

Much that has been given in the etiology of the idiopathic form of premature baldness, especially in regard to the use of water on the head, the wearing of hats, and the use of pomades, could be repeated here, since they tend to produce pityriasis, and in that way alopecia furfuracea.

The *prognosis* of symptomatic premature baldness will vary with its cause. When due to dandruff, it will be good if treatment is begun in time, before actual baldness is present. Even if the hair is quite thin and the scalp shows a large number of lanugo hairs, we may yet have hope, if there is no predisposition to baldness. Defluvium capillorum usually takes care of itself, and we can give our patients a favorable prognosis. Syphilitic alopecia, when dependent upon the cachexia of syphilis, is seldom permanent. The baldness following favus is permanent; that coming after ringworm is transient.

¹ Archiv de Physiol. norm. et path., 1874, pp. 451, 465.

² De la nature parasitaire du pityriasis capiti, etc. Paris, 1884.

³ Vierteljschr. f. Derm. u. Syph., 1884, xi., 523.

⁴ Monatshft. f. prakt. Derm., 1882, i., p. 131.

Ulcerative processes are followed by permanent baldness. Pustular lesions will not cause baldness, as a rule, and if the hair is plucked early from the follicle the danger of its occurrence is lessened.

Rapid results cannot be expected from our treatment. We must have our patients understand that they must have patience and perseverance, and that the result of treatment will depend chiefly upon their faithful carrying out of directions.

The *treatment* of symptomatic premature alopecia is both prophylactic and curative. Of course, prophylaxis applies chiefly to alopecia furfuracea. If it were better understood that dandruff is often followed by baldness, it would be early submitted to treatment, and there would be fewer bald heads. The prophylaxis for this form of baldness is the same as for the idiopathic form, and need not be repeated here.

The curative treatment of alopecia furfuracea is first addressed to the ridding of the scalp of the seborrhœa or pityriasis. If there are thick crusts or cakes of sebaceous matter on the scalp they must first be soaked with oil and then removed by the shampoo. If dandruff is present in only slight amount the shampoo may be used at once. For this purpose we should use soap and water. For our soap we may choose the tincture of green soap. If the scalp is too tender for that we may use Sarg's liquid glycerine soap, Pears' glycerine soap, Castile soap, or any good toilet-soap. Or, if the scalp does not tolerate these, we may order a shampoo of eggs, made by beating up the yolks of three eggs in a pint of lime-water and adding half an ounce of spirits of Cologne, if we want perfume. Borax and water make another excellent wash. Do not stint the water. Rub the shampoo vigorously into the scalp in all directions, using either the fingers or a long-bristled, moderately stiff brush. When the scalp has been well rubbed, the soap or chosen shampoo is to be washed out with a copious stream of water of a temperature agreeable to the patient, or, if convenient, with alter-

nate douches of hot and cold water. The scalp and hair are then to be thoroughly dried, and a little oil rubbed into the scalp. If an excess of oil has been used it may be readily removed by pulling the hair between the folds of a towel moistened with Cologne, alcohol, or ether. The shampoo should be repeated daily for a week or so, and then once every week or two.

While the care of the scalp and hair is, perhaps, the most essential element of success in the treatment of these cases, still they need stimulating treatment in addition. So many stimulants have been recommended that one is somewhat embarrassed by the excess of richness. We may use carbolic acid in alcohol, two per cent. strength; tincture of capsicum or of cantharides, one to three drachms to the ounce of water; chloral hydrate, or tincture of nux vomica, one drachm to the ounce; corrosive sublimate, one to three grains to the ounce; the stronger water of ammonia, pure, or diluted if too strong. These may be used either as lotions or ointments, separately or in combination. Then there is a wash of rum and quinine which every druggist keeps upon his shelves, and so many of the laity use. This list is by no means exhaustive, but quite sufficient.

An excellent ointment for use, as curative of the seborrhœa, is one which is known, in at least three different dispensaries, as "Bronson's Ointment" after my esteemed friend Professor E. B. Bronson, of the New York Polyclinic. It is made of

Hydrarg. ammon	℥ij.
Hydrarg. chlor. mitis.....	℥iv
Vaseline	ad ℥j.

M.

and when properly compounded forms an elegant pomade of the consistence of a Mayonnaise dressing, and effectual withal.

Pincus¹ advises, in the first stage of alopecia furfuracea, the rubbing of the scalp with a solution of bicarbonate of soda, strong enough to redden the skin, and following this with a compress and an oiled-silk cap to be worn all night. Unfortunately this stains the hair. In the second stage of baldness, when the hair-fall is pronounced, he advises the use either of

Tannin.....	gr. lxxx.
Ungt. rosæ.....	ʒj.

M.

rubbed in every night, or of

Ol. sabinæ.....	gutt. v.—xxx.
Alcohol.....	ʒj.

M.

used in the same way. The latter he prefers, as it can be stopped for several weeks at a time, while the use of the former cannot be interrupted for more than six days. A hood is to be worn at night with either of these. The oil of savin often causes headache, nausea, vertigo, and sleeplessness, which interdict its use. Pincus further advises the use of a lotion or ointment containing two to four per cent. of lactic acid, and eight to ten per cent. of boracic acid, applied daily for two or three weeks, and then, after a pause of a few days, followed by an ointment of bicarbonate of soda, three to eight per cent. strength, for one week. Thus he alternates his ointments for one year.

Lassar (*Monatshft. f. prakt. Dermat.*, 1882, i., 131) has had good results by washing the scalp with tar-soap daily, following with a wash of

Sol. hg. bichlor. (1 in 300),	
Spt. cologne,	
Glycerine.....	ʒij.

M.

¹ Virchow's Archiv, 1868, xliii., 305; also, Berl. Klin. Wochenschrift, 1883, xx. 645.

Then the scalp is to be dried, and a one to five per cent. solution of naphthol applied. Finally, a one and a half per cent. carbolized oil is poured over the head. I fear that we would have difficulty in persuading our patients to carry out so troublesome a procedure.

Heitzmann, of our own city, reports ("Transactions of the American Dermatological Society," 1885, p. 32) favorable results from the use of crude oleum rusci in an ointment of vaseline and paraffine, in ten to twenty per cent. strength. This is to be alternated with sulphur and white precipitate ointments.

Piffard (*Journal of Cutaneous and Venereal Diseases*, June, 1885, p. 180) has had good results by using the following :

Picis liquidæ,	
Olei lavendulæ	āā 3j.
Olei pini sylvestris	3vj.

M.

In some cases sulphur is added at the commencement of treatment.

Resorcin has been recommended by Ihle. I have not found it so efficacious as other remedies.

In the treatment of these cases I have seen the best results follow the systematic care of the hair, the avoidance of frequent wetting of the hair, and the use of an ointment of precipitated sulphur in the strength of one drachm to the ounce of vaseline, applied every night for a week or two, and then every other night, until the scalp no longer is furfuraceous, and then once a week for months. If care is used in applying the ointment there will be no excess of sulphur showing on the hair.

As illustrative cases of what may be done by this plan of treatment let me recite the following :

CASE I.—J. D—, aged twenty. Hair has been falling steadily for past two years, excessively for last two months. Hair thin over whole top of head, dry, and dead-

looking. A shampoo of borax was ordered, to be followed by the sulphur ointment, and directions as to the care of the scalp given. In three months the hair was growing luxuriantly, and the pityriasis was stopped.

CASE II.—M. B—, aged twenty-six. Hair has been falling for three or four years, and over whole top of the head it is very thin. Was put upon the same treatment, and in nine months' time the hair had ceased falling, and was growing so nicely that the patient had discarded the wig which she had worn for many months.

CASE III.—E. B—, aged twenty-two. Hair has been falling for two months; scalp scaly; hair thin and dry. After two months of the above treatment the scalp was looking healthy, and the hair was growing nicely.

CASE IV.—Dr. A—, aged thirty-three. Hair has been falling for four years; is quite bald. After two months' treatment the fall of the hair was almost entirely checked. He reported to me, after ten months' treatment, that the hair had ceased falling, and was growing in to an appreciable degree.

CASE V.—L. B—, aged twenty-two. Hair is falling and has a good deal of dandruff. After five months' treatment the scalp was in fine condition, and the hair was growing nicely.

The treatment of *syphilitic alopecia* is by the internal administration of mercury, the mixed treatment, or the iodide of potassium, according to the stage of the disease. Locally, if any lesions are on the scalp, we may prescribe a lotion of the bichloride of mercury, or an ointment of the ammoniate of mercury. If there are no lesions, then stimulating remedies may be used as in *alopecia furfuracea*.

Defluvium capillorum remedies itself in most cases, and only requires attention to the general condition and to the hygiene of the scalp. If this does not suffice, stimulating measures, such as those given above, may be used.

Alopecia follicularis needs the treatment appropriate to the disease present. If there are pustules on the scalp, the hair should be pulled from them.

In conclusion, I would place special emphasis upon the importance of the hygiene of the scalp; the nearer we can bring the scalp to a perfectly healthy condition, the more we can accomplish for the restoration of hair growth. Do not be too easily discouraged, nor allow your patients to despair until a year at least has been given to the faithful care of the scalp.

14 EAST THIRTY-FIRST STREET.