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HEALTH AND HYGIENE



APRIL
1936

FIFTEEN
CENTS

DANGERS IN REDUCING

By CARL MALMBERG

HOW TO TREAT DANDRUFF

PREGNANCY AND ABORTION

THE COMMON COLD IN CHILDREN

WORKERS POISONED IN AUTOMOBILE INDUSTRY

By GEORGE MORRIS

Fifty-two Doctors write for this magazine!

OUR MAGAZINE EXPANDS

IN January 1935, a few doctors and dentists examined the field of popular health magazines and decided that there was a need for a health magazine of a new type. Not that there was a dearth of these magazines; scores were being published, some with great national circulation and crowded pages of advertising. It was found that practically all of the magazines fell into one of four types.

First, there were the straight advertising magazines—slightly disguised house organs—published to sell the products of one or two firms, hawking the wares of a patent medicine company, a bar-bell manufacturer, a maker of “nature salts,” or a seller of “genuine health food.” Other magazines were the organs of cults and faddists, proclaiming that all disease was caused by some single factor like overcooked vegetables, or displacements of the spine or evil thoughts. Often these two types were combined and the magazine’s message was that all disease was caused by loss of minerals during cooking of food and that a disease was prevented or cured by using a certain company’s original “nature vegetable salt.” Most of these magazines had small circulation and their effect, fortunately, was only moderately harmful.

More vicious were the great national publications filled with sensational frauds and cheap fiction with a health “lesson.” Some of these magazines bore a false air of respectability, maintained so-called “bureaus of standards” and gave out “seals of approval” to any company rich enough to pay their high advertising rates.

Finally, there were the few respectable magazines, accurate and honest in their very limited field, and published by reputable organizations. They denounced patent medicines, but not by name, or attacked some old frauds that were out of business for years. They warned against home treatment and stressed the need for visiting a doctor. These magazines advised good food and fresh air for children and warned adults against playing too many holes of golf. It was, of course, beneath their dignity to discuss how one could get these things.

The doctors and dentists felt there was a need for a health magazine that would deal with the *whole* question of health for people of very limited means. Such a magazine would have to be honest and fearless, attack all forces that stood in the way of good health, expose all health frauds, support the fight for all measures that would further the health of the people. It implied attacking the autocratic officials of the American Medical Association for their reactionary stand on health insurance and social-security legislation of the masses. It requires warning against the perils of industrial disease, putting the blame where it belonged and advising how these diseases could be prevented. More than this, it would be necessary to show the source of these evils, to trace the connection between disease and unemployment; inadequate relief, the speed-up and the stretch-out; and to fight against the fraudulent social-security plans of President Roosevelt and for honest measures like the Frazier-Lundeen Bill.

Who would sponsor such a magazine as the doctors and dentists had in mind? They discovered that only the DAILY WORKER was willing to stand in back of such a series of attacks on these powerful forces ignore pressure from all sides and support the magazine loyally.

Since the date of its first issue (April 1935) HEALTH AND HYGIENE has grown to a circulation of 20,000, with a total number of readers near 100,000. Increasing numbers of doctors and dentists, convinced by their colleagues’ work, joined the magazine and today there are over fifty doctors and dentists who contribute articles regularly. These doctors and dentists have now organized a People’s Health Education League, which will publish HEALTH AND HYGIENE, hold health forums, furnish speakers to organizations and syndicate a health column to labor papers throughout the country. They invite all forward-looking, social-minded doctors to join them in their efforts to fight against the entrenched forces of reaction that make for poor health among the masses and to lend their efforts in the fight for the requisites of good health for all.

HEALTH and HYGIENE

*The Magazine of the Medical Advisory Board of the
People’s Health Education League*

Volume 3

APRIL, 1936

Number 4

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Editors: EDWARD ADAMS and JOHN STUART

HEALTH and HYGIENE is published monthly by the H. & H. Publishing Co., Inc., 41 Union Square, New York, N. Y. Subscription price, \$1.00 a year, in advance; Canadian and Foreign, \$1.50. Single copies, 15 cents. Copyright, 1936, by the H. & H. Publishing Co., Inc. Entered as second-class matter March 27, 1935, at the Post Office at New York, under the Act of March 3, 1879. Text may not be reprinted without permission. Subscribers are informed that no change in address can be effected in less than three weeks.

SLUMS MENACE WORKERS

A City of Tenements

WHILE traditionalists and modernists argue about styles in architecture, let it be dolefully noted that we never have to worry about the homes of workers; they simply burn down. And before they burn, they are kept in such condition that their inhabitants suffer from tuberculosis at a rate thirty times as high as among the well-to-do.

New York City is a city of slums. Where else would the unemployed and the grossly underpaid live? The first Tenement House Law of 1867 was aimed at the prevention of slums. But as so often happens, the Department of Health which was charged with the law's enforcement had the right to "waive" requirements in specific cases. The law was ignored and the result was the construction of over 82,000 tenement firetraps, without windows, without sanitary facilities. These are known as Old Law tenements. In 1900 an investigating commission pronounced them *unfit for human habitation*. Today 60,000 are still lived in.

This does not mean that only 60,000 tenements are unfit for habitation and are being lived in. For the so-called New Law tenements, those built since 1902, are nearly as bad. The 19,759 built between 1902 and 1911 inclusive were recognized by the Tenement House Department in its thirteenth report (1935) to have similarly greatly deteriorated. And the 33,250 built since 1911 are not homes people would choose to live in.

The records prove this. In 1934, there were 6,639 fires in these tenements. Even comparing two types of firetraps, we see that in that year deaths from fires in new-law tenements were seventeen and in old-law tenements sixty-seven.

In 1935, there were 7,673 fires in tenement houses, resulting in 120 deaths. The reason for these many deaths is poor building construc-

tion, an absence of fire-escapes and the total lack of fire-retarding materials in walls and ceilings. All these could be repaired if their owners wanted to spend the money. Their attitude, however, is: you can always get another tenant, but money costs six per cent.

Fountains of Disease

BESIDES their status as firetraps, these houses are fountains of diseases. Ten thousand New Yorkers die of tuberculosis yearly. Of this number the vast majority come from these tenements. There are twice as many deaths of workers living in the old-law tenements as those living in the new. In 1873, a scientist, Trudeau, proved that fresh air, rest, good food and housing will lead to a recovery from tuberculosis. Those are just the things that workers haven't got, and won't ever have unless they fight for them. The New York City Department of Health in a pamphlet offers the following free advice about the cure and prevention of tuberculosis:

"1. Fresh air is as necessary to health as pure and nourishing food.

"2. People should not sleep in overcrowded rooms, with closed windows.

"3. Choose *sunny* rooms. Open the windows and let the air in."

But you cannot open windows if there are no windows. Many of the tenement apartments actually have no opening in the wall through which air can come; it was cheaper to build them that way. The effect is that impure air circulates from one apartment to another. Where there are windows, there often is no light, because the tenements are backed one against the other. There is no sanitation problem because there is no sanitation. Many apartments have no toilets, no bathtubs, no sinks. These are the very conditions in which tuberculosis develops and spreads. These are the

conditions which exist and cause so many thousands of underpaid workers to die each year.

We, however, have legislators who will, of course, do their best for us. Let us see what they have done to fight fire and disease.

In 1929, over the protests of big business, the Multiple Dwellings Law was passed. Its aim was to improve housing conditions. And last June various amendments were passed which required a toilet for every apartment and the installation of fire-retarding materials in walls and ceilings. Landlords were given until January 1 of this year to make the necessary changes. They haven't complied with the law yet, claiming that they can't afford to spend the money for such things. And then the landlords had *our* representatives propose three of the most cowardly and dangerous bills ever presented to a legislature.

Gifts for the Realtors

MR. HENDEL and Mr. Carrelli (both Democrats) offered bills to relieve three-story tenements from the necessity of having fire-escapes of proper construction. Mr. Brownell (Republican) proposed a bill to permit sprinkler systems in old law tenements over three stories high, instead of the required fire-retarding walls, ceilings and so forth.

But these are gifts compared to the Stephens Bill. Mr. Stephens is the Republican Assemblyman of Putnam County, a county without any tenement houses and hence no affected constituents. His bill is sly. It is not an act to repeal life-saving and sanitation provisions of the Multiple Dwellings Law. It is an act to make a comprehensive study and collect facts about multiple dwellings and multiple dwelling conditions in the cities and other municipalities of New York State to which the provisions of the Multiple Dwellings Law are applicable. And incidentally the bill suspends "all the provisions of the multiple-dwelling law to (a) individual toilets and (b) fire-retarding, insofar as they apply to or affect old law tenement houses . . . until February 1, 1937."

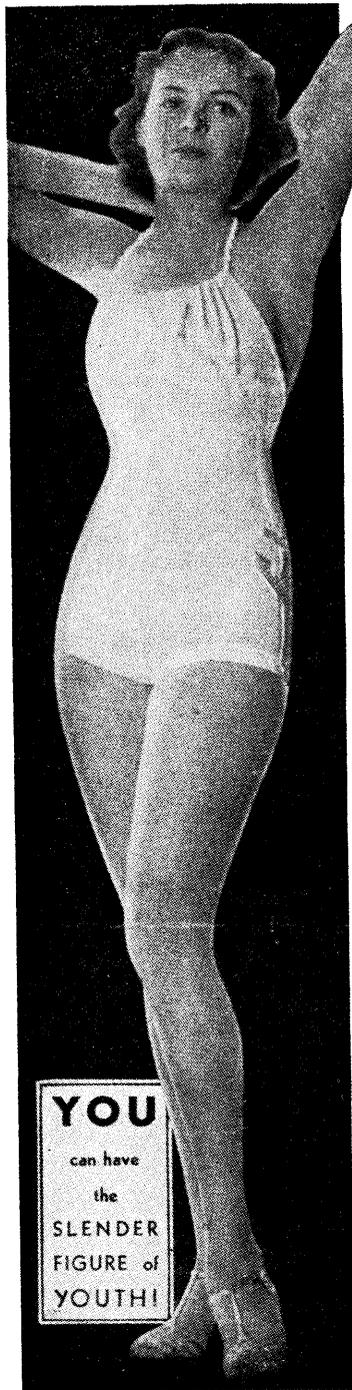
This bill shows how politicians bow before the club of big business. It would be a joke if it weren't criminal. First, an Assemblyman of a county without tenement houses had to be found to offer the bill. Second, the bill pur-

ports to be very general in its reference to all cities, whereas the Multiple Dwellings Law is compulsory only upon cities of over 800,000 population, of which there is but one—New York. Third, it talks of its purpose "of effecting temporary partial relief to owners of old-law tenement houses" whereas we had thought it was those who were dying of TB and in fires who needed relief. Fourth, it creates an investigating commission in order to have an excuse for a suspensory provision whereas if they had read the thirteenth Tenement House Department Report all the facts they want of deaths and disease would be clear.

Recently, speakers at the dinner of the Savings Banks Real Estate Managers spoke in favor of the Stephens Bill. Andrew Mills, Jr., president of the Dry Dock Savings Institution, was one of these. The Brownell Bill is backed by the Chamber of Commerce in its recent report signed with others by Joseph P. Day, millionaire realtor.

Roosevelt Does Nothing

WHAT we have said may be new; it is not, however, surprising. For forty years, many social-minded people have been urging decent housing for workers; for as many years, hard-headed business men have assented in public speeches and then did what they wanted. Mr. Roosevelt began promising millions for housing in 1933. As Sidney Hill shows in a pamphlet, "Housing Under Capitalism," Roosevelt actually has done nothing. Instead it was the banks, the large insurance companies, the wealthy realtors who were able to extricate themselves through the Home Owners' Loan Corporation and the Federal Housing Administration. They got cash or bonds for their mortgages. And very recently the government withdrew its appeal in the Supreme Court from an injunction secured by realty interests against the government's attempt to clear slums and build low-cost houses. That and the bills now pending in the New York legislature are of a piece; they show what we have to hope for if we wait for Republican and Democratic legislators to do anything. And little is likely to be done until a Farmer-Labor Party speaking for the interests of the masses, becomes a reality.



“Reduced
37 POUNDS
with DILEX-REDUSOLS and feel fine!”
writes Mrs. H. H. LANGLEY, Roanoke, Va.

YOU
can have
the
SLENDER
FIGURE of
YOUTH!

—but reducing with patent medicines such as Dilex-Redusols, Nitra-Pben, Formula 281, Aldinol, Dekrysil or any other dinitrophenol compound will also ruin your health.

DANGERS IN REDUCING

Carl Malmberg

ONE of the most lucrative fields for the charlatan in medicine is the province of diet. Enticed by the profits that are almost certain to accrue to any one who can offer a new system of eating, doctors and laymen alike rush into print with advice that is both nonsensical and dangerous. A William Howard Hay can attain fame and fortune with a system based on the absurdity that starches and proteins cannot successfully be digested together, and a Bengamin Gayelord Hauser can line his pockets by selling advice so dangerous that those who heed it are actually imperilling their lives. One of the things that has made it possible for these individuals and many others like them to achieve success is the universal desire for slimness. Exploiting this desire, the dietetic quacks formulate their systems, collect the returns, and ruin the health of countless gullible victims. An article of this length does not offer an opportunity to take up the numerous dietary methods of weight reduction, but another aspect of the same subject, the immense traffic in reducing preparations and devices, may profitably be discussed.

Every year people in the United States spend millions of dollars for these preparations and devices, with results that are deplorable both from a standpoint of health and economy. Just how deplorable the results are may be judged by the fact that of the great number of obesity

cures popularly marketed there is not one that is both effective and safe. If it is true that a certain product *will* reduce, then it is equally true that that product cannot be used by the average person without a risk of dire results; conversely, if an obesity “cure” can be taken with safety, it is absolutely certain that it *will not* reduce.

Three general types of obesity “cures” are offered to the public. They are (1) chemical compounds, (2) food products, and (3) mechanical devices.

Those preparations which fall into the first of these groups are by far the most numerous. They are also the most dangerous. They include all the various pills, powders, tablets, and chewing gums designed for internal use, as well as the pastes, soaps, creams, lotions, and bath powders which are to be applied externally. The compounds for internal use are more often than not dangerous, while those for external use are generally very much overpriced concoctions which can do neither harm nor good.

Many of the compounds for internal use are nothing but laxatives. *Jad Salts*, *Kruschen Salts*, and *Crazy Water Crystals*, which have been extensively advertised in newspapers, magazines, and over the radio as anti-fat remedies, produce their effect simply by “physicking” the person who uses them. It is true that the constant use of a laxative will often result in a loss of weight, for the food is eliminated from the body before all of the nourishment has been extracted. But it should also be obvious that a person who sets out to reduce in this way runs the risk of undernourishment and intestinal troubles. All saline laxatives operate by irritating the intestine, and by following the directions that go with *Jad*, *Kruschen*, or *Crazy Crystals* you stand a good chance of giving your intestinal tract more punishment than it can stand.

Besides, all saline reducing preparations depend for their effect upon some ordinary compound such as Epsom or Glauber’s salts which can be bought in a drug store for a few cents. But advertising space and radio time cost lots of money, and *Jad* and *Kruschen* are not in business for their health—or any one else’s, for that matter. Consequently, when you buy these products you not only endanger your health but you pay many times what the ingredients are worth.

If you want a surprise, look at the directions accompanying the next box of *Jad* you can get hold of for a few minutes. You will find that the directions state *Jad* is *not* sold as a reducing remedy! For sheer cheek, this takes the prize.

Other reducing compounds which are nothing but laxatives are: *Germania Herb Tea*, *Manikin Tea*, *Slends Reducing Gum*, *Figuroids*, *Vannay*, *Thyn Tabs*, and *Condensed Jad Salts*. Marmola contains not one laxative, but three; and it contains another dangerous ingredient, as well.

MARMOLA brings us to another category of reducing compounds for internal use—those containing thyroid gland—and it provides an outstanding example of how a drug can be peddled in spite of the fact that it has been proven a serious menace to health. The government has brought action against *Marmola*, with the result that it may no longer be sold by mail. However, it may still be sold in drug stores. If the government should attempt



Streamline unsightly bulges with

ELIZABETH ARDEN'S

“SLENDERLINE

REDUCINE” LOTION

6.50

Apply to any fatty portion of the body you want to reduce . . . usually hips, arms, ankles or legs. Effortlessly and without resorting to special dieting or exercise, those portions will begin to taper to a firm and becoming slimness.

A&S Street Floor, East

to stop the drug store sale of *Marmola* its action would be declared unlawful by the courts. The courts must protect our American liberties—even the liberty to pass poison over the counters.

Marmola consists of dried thyroid gland, extract of bladderwrack, extract of phytolacca, cascara sagrada, and phenolphthalein. The last three of these ingredients are all laxatives, and phenolphthalein is a particularly dangerous one. Bladderwrack is a form of seaweed which for no good reason appears in a great many reducing preparations, and which is used in certain parts of Ireland as a food for fattening hogs. Thyroid gland substance, the principal ingredient, serves to accelerate metabolism (the burning up of food or body tissue within the body), and thus brings about a loss in weight. Too often, however, the loss in weight is accompanied by serious physical disturbances, and in some instances death has been directly traced to the use of anti-fat pills containing thyroid. It should be evident that a drug capable of affecting so vital a body process as metabolism should not be sold indiscriminately. Yet *Marmola* and many other drugs of this type are available to any one who wants to buy them.

Besides *Marmola*, other obesity cures containing thyroid are: *Faid*, *Arren Tablets*, *Silph Chewing Gum*, *Phy-thy-rin*, *San-Gri-Na*, and *Arbolone*.

Another drug which acts as a metabolic stimulant and which has lately been used in reducing preparations is dinitrophenol. This drug is so powerful, and its effects even in scientifically controlled experiments so drastic, that most doctors do not yet dare prescribe it for their patients. Yet there was joy in the proprietary

medicine industry when the reducing properties of dinitrophenol were discovered in 1933, and in a very short time the drug was being sold over the counters and through the mail to thousands of unsuspecting victims. Already cases of blindness and deafness have been reported among its

users, and it is safe to say that many other cases have escaped attention. The drug is especially insidious, for it may be taken for a long time before symptoms of poisoning are noticed. Furthermore, it is believed that several diseases may be aggravated by it, and that persons suffering from chronic rheumatism, alcoholism, tuberculosis, and kidney and liver trouble are particularly susceptible to its effects.

Some of the anti-fat preparations in which dinitrophenol or one of its allied compounds is the active ingredient are: *Aldinol*, *Slim*, *Tabolin*, *Dekrysil*, *Dinitrenal*, *Formula Number 17*, *Formula 281*, *Nox-Ben-Ol*, *Nitroment*, *Dinitrolac*, *Nitra-Phen*, *Dimitriso*, *Dimitrose*, *Re-Du*, *Dimitrole*, and *Dilex-Redusols*.

There are other reducing preparations which contain urea or ortho-borate or similar substances capable of disturbing digestion and producing nausea. The process is very simple: take these drugs, and you will be too sick to eat. If you stop eating you are bound to lose weight. *Retardo* and *Minora*, both advertised as wonderworkers, are products of this type. This method of reducing is closely allied to one followed in Hollywood, where certain movie actresses have evolved a way of eating their cake and *not having it*, at the same time. After stuffing themselves with as many fattening delicacies as they desire, they take an emetic and retire to vomit. From a standpoint of health this is sheer insanity, and the practice is said to have been responsible for the recent death of one well-known star. The extremes to which people will knowingly go in order to get rid of weight is further demonstrated by the fact that doctors occasionally have women ask them for the "tapeworm cure," a legendary form of treatment in which the patient is fed a tapeworm.

REDUCING compounds for external use are generally harmless, but they are always fraudulent. There is no substance which will bring about a loss of weight through external application, although newspapers carry advertisements which claim this power. "Simply rub it on, and the fat will literally melt away," is the message imparted in practically all of these advertisements. The fact that manufacturers of such out-and-out fakes can continue year after year to reap huge profits is an appalling indication of the extent of human gullibility.

A FEW MINUTES A DAY Rolls **FAT** away NO DIET---NO EXERCISE---NO MEDICINES

When analyzed for their ingredients these miracle creams and lotions invariably prove to be ordinary mixtures that any one could compound for himself at a cost of a few cents. *Fatoff*, for instance, is nothing but soft soap and water. *Absorbit* contains nothing but lard, oil, beeswax, and ox-bile. A reducing lotion known as the *Texas Guinan World-Famed Treatment for Corpulency* was for a long time sold to the public for \$20 a quart, although it was composed simply of about 20 cents worth of alcohol, powdered alum, and water.

Other frauds in this category include *Morlene*, *Nature's Way Reducing Cream*, *Slendiform*, and Elizabeth Arden's *Slenderline Reducine*.

Closely allied to these products are the bath powders and soaps for which extravagant claims are made. One of the most widely advertised of these is the *Lesser Slim Figure Bath*. This humbug is a powder consisting of corn starch, borax, baking soda, and tartaric acid, and a tablet made of baking soda, table salt, and tartaric acid. Put the two together in a tub of water, get into the tub, and then wait for the fat to disappear! And while you are waiting, consider that it is supposed to have taken a corps of German scientists years of painstaking work to perfect this marvel that you could mix up in a few minutes out of the contents of your kitchen cabinet.

Fayro, *Every Woman's Flesh Reducer*, *Flo-razona*, *Sangra Bath Salts*, and *San-I-Sal* are products of the same type as *Lesser Slim*. They are all expensive and all useless. Equally useless are the so-called reducing soaps. Some of these have alkalis added which will form a scum on the water, and the user is asked to believe that this scum is the excess fat that the soap has washed away. The utter irrationality with which these products are compounded is shown by the fact that thyroid appears as an ingredient in some of the remedies intended

for external use. As we have seen, thyroid can bring about reduction when it is taken internally, but when applied externally it can have no effect whatever.

THE second main category of reducing preparations are the food products. Some of these are legitimate commodities which have long been sold as ordinary foods, but whose makers have suddenly discovered that they possess unusual virtues as reducers. *Welch Grape Juice*, with its expensive newspaper and radio advertising campaign intended to convey the impression that one can get thin by drinking *Welch's*, is such a product. A person who lets himself be caught by this advertising will soon find that he can get thin by drinking grape juice only if he goes on a strict reducing diet at the same time.

Most of the special food reducers, however, have no value either as foods or as reducers. Practically all of them are made of the cheapest and most ordinary ingredients, and are sold at outrageous prices. Besides, there is a catch to them that is not mentioned in the advertisements—the purchaser will usually find that he is instructed to take a spoonful or two of the mixture *instead of breakfast and lunch*. He is led to believe that the product is a concentrated food, and that a little of it goes a long way. In every instance this is an outright misrepresentation. None of these foods are concentrated, and a person who buys them and follows the instructions is in danger of undernourishment. Exactly the same results could be achieved by going without breakfast and lunch, and the dollar or dollar-and-a-half which these products usually cost could be used for a better



Alice White, well-known Universal Film Star, massaging her thigh.—and your pocketbook.

Try Dietene just one week. If your overweight is the result of overeating, we guarantee that you will lose from one to three pounds a week. You will not only look better but you will also feel better.

The First Low Calorie Diet Ever Approved by Good Housekeeping

Dietene has been tested and officially approved by Good Housekeeping Bureau as pure and wholesome, and as an easy way of decreasing the number of calories consumed per day, but maintaining a high proportion of proteins, vitamins and minerals.



A fraud endorsed by Hearst's Good Housekeeping Bureau

purpose than enriching the swindlers who make, sell, and advertise them.

Let us see what these so-called special reducing foods are made of. *Dr. Stoll's Diet-Aid* consists essentially of corn starch, sugar, cacao powder, and caramel. *Stardom's Hollywood Diet*, a similar humbug, consists of about 2 cents worth of soya bean flour flavored with cacao and salt. *Minamin*, *Basy Bread*, *Kelfood*, and *Dietene* are other frauds of this type. *Kelfood*, incidently, is supposed to be as effective for underweight as it is for overweight. *Dietene* is advertised as "the first low calorie diet ever approved by *Good Housekeeping*."

IN the third category, mechanical devices for reducing, are included the various so-called reducing belts and girdles and the numerous rollers and massagers that are supposed to "knead away the fat." All of these contraptions are overpriced, some of them are likely to be harmful, and none of them are of the slightest value.

The *Perfolastic* girdle for women and the *Weil Reducing Belt* for men are sold with the preposterous guarantee that they will reduce the waist line 3 inches in 10 days. No, don't send any money. Merely give it to the postman when he delivers the package.

Belts and girdles of this sort cannot reduce the waist line. All they can do is make the wearer uncomfortable and interfere with the evaporation of perspiration. The massage-like action which is claimed for them is a hoax, and even if it were not they could do no good for the simple reason that no amount of massaging will effectively remove fat.

However, here is a bit of advice to any one who may still be tempted to order one of these harnesses after reading this. Don't bite on the first offer. If you hold out, both *Weil* and *Perfolastic* will offer you substantial reductions in their prices. Naturally, the original prices

are placed high enough to take care of these subsequent reductions.

The *Hemp Bodi-Massager* and *Rollette* are gadgets of the roller type for which equally extravagant claims are made, and which are equally useless. With these devices there is the added danger of pinching and bruising the tissues.

CONTRARY to general opinion, the people who have reducing nostrums to sell do not make their appeal exclusively through the cheaper magazines and the tabloid newspapers. All the advertisements for these commodities is so written that it would seem impossible for any intelligent person to succumb to them, and the mediums in which the advertisements appear show that the upper, middle and poorer classes are all equally gullible. On the strength of *Good Housekeeping's* endorsement the middle-class housewife is deluded into buying *Dietene*, and the Park Avenue debutante buys *Kruschen Salts* because it is advertised in *Harpers Bazaar*, *Vanity Fair*, and *Vogue*. Those smug and respectable journals, the *New York Times* and *New York Herald-Tribune*, do not scruple to set forth the merits of Best and Company's fraudulent *Thermo-Roller* (\$12.75), Elizabeth Arden's preposterous *Slenderline Reducine* lotion (\$6.50), or the refined quackery of Saks Fifth Avenue Silhouette Shop, where "recontouring" is allegedly accomplished by means of a "heating bed," a "special solution," and "scientifically adapted massage" for sums ranging from \$30 to \$60.

One and all, these obesity nostrums are swindles, regardless of whether they are mailed from a dirty loft or sold in an expensive department store. And no government which had the public interest in mind would allow them to be sold.

But our government does allow them to be sold. Regulation is attempted, but it is both futile and sporadic.

The destruction of the Tugwell pure food and drug bill by Congress proved that there is big money behind the reducing racket and all the other proprietary medicine rackets. It also showed that the big money interests, to whom our government always caters, are unwilling to permit even such regulation as would reduce their ill-gotten profits by a small percentage.

THE COMMON COLD IN CHILDREN

Colds in children may develop into serious complications. Infants, especially, must be guarded against infection.

THE common cold, characterized by sneezing, a running nose, slight cough, and at times a sore throat, is more serious in infants and children than it is in adults. This is so for several reasons. In the first place, infants, because they have not as yet been able to develop resistance to many diseases, become severely ill from diseases which may only mildly affect older children; or from colds the baby may more easily develop pneumonia, or some other complications than do older children or adults. Inflamed ears, which may become abscessed and discharge pus, are more likely to appear in infants and children. Repeated ear infections can cause impairment of hearing and in some instances, the infection may spread from the ear to the mastoid and require operation. Sore throats are also commonly associated with colds in infants and children. Such infections are frequently accompanied by swelling of the glands of the neck. Repeated attacks of sore throat may be a symptom of rheumatic fever with its dread heart disease, or may lead to inflammation of the kidneys. Last but not least, the cold may spread into the bronchi or air tubes in the lungs and cause bronchitis and pneumonia.

When one considers these complications, it becomes apparent that the common cold is not infrequently a serious disease in infants and children. The importance, therefore, of preventing this disease is also apparent. There is as yet no certain scientific means of artificially producing immunity to colds as there is in diphtheria and smallpox. One thing that can be said for certain is that colds are spread about by contact with people who are already suffering from colds. It is not unusual, for example, for one member of a family to develop a cold and then have it sweep through the

entire family. It is also common knowledge that colds come in epidemics. That is, several periods during the year large numbers of people suffer from colds at the same time.

WHILE it is practically impossible to prevent colds in active children past the age of infancy, it is both possible and necessary to do so in infants. This can be done by making certain that no one with a cold comes near the baby. When the mother has a cold, and if the baby is breast-fed, the mother should wear a dry, well-made mask of gauze covering the mouth and nose. The mother's hands should be kept very clean and she should stay away from the baby as much as possible. If the baby is bottle-fed, someone besides the mother should care for the baby until the mother is well over her cold. If the mother cooperates to the fullest extent it is possible to prevent the baby from catching cold during the greater part of its first year of life.

As has been mentioned, it is impossible to avoid exposure of older children to people suffering from colds. This does not mean that children should be exposed unnecessarily. The best preventive measures are those that build up the child's resistance to cold infections. While it is practically impossible for the average family with a small income to afford diets for children containing milk, butter, fresh vegetables and fruits and cod-liver oil, it is important to provide these foods in order to develop children's resistance to infections. Certainly fresh air and an adequate amount of rest and sleep can easily be provided. The child who has been on a good diet and who has been having the proper rest has by far the best chance to overcome infections.

Aside from these preventive measures it is

necessary to prevent complications or to treat these complications as soon as they show themselves. This means that every infant and child suffering from a cold should be put to bed. In the case of infants, because of the more serious possibilities, a doctor should be consulted. Of course, it would be best for every child suffering from a cold to be seen by a doctor. Unfortunately, these days, that also is an impossibility. However, when the child begins to run a fever, complains of sore throat, or ear-ache, or begins to cough a doctor should be consulted. The earlier complications are treated, the easier it is to cure them. It goes without saying, that no one suffering from any kind of contagious disease should be allowed near the child, since at such times the child is even more susceptible to disease. It should also be stressed, that during the acute stage of a cold, the child usually does not have a good appetite. Do not force the child to eat as this may result in a chronically poor appetite.

WHEN a cold lasts unusually long, that is, where the nose continues to discharge pus, and the child coughs a good deal because of the pus dripping down the back of the throat from the nose, there is probably a chronic infection of the adenoids or sinuses of the nose or both. Such conditions should be attended to by a physician. Removal of the adenoids may be necessary or the sinuses may have to be treated. At times it is even necessary to remove the adenoids in infants because of the repeated nasal infections. Repeated attacks of ear trouble, are also frequently halted when the adenoids are removed. If the child breathes through the mouth or snores in his sleep the adenoids may have to be removed because they are obstructing the nasal passages.

Other conditions which cause colds in the nose to hang on are diphtheria of the nose,

hay-fever or the presence of some foreign object the child may have pushed up its nose. All of these causes are indications of why the physician should be consulted. The mere use of medicines in the nose will not clear up such conditions. Of course the frequent occurrence of sore throat is reason enough for the removal of tonsils in order to prevent serious consequences. It is a safe rule to follow that colds in infants should be treated by a doctor; a cold in an older child requires a doctor when there is fever.

IN the past few years it has become fashionable to treat colds by placing drops in the nose. This practice, encouraged by the manufacturers of "cold remedies", is to be strongly condemned. Nose drops have not the slightest value in preventing or relieving colds and in infants and children, may cause a good deal of harm. The drops usually consist of drugs like menthol or ephedrine dissolved in oil. In children the drops may trickle down from the back of the nose into the wind-pipe and lungs and possibly produce pneumonia. Nose drops, at best, have a very limited place in the treatment of nose and throat infections and that place should be indicated by a physician. In infants and children nose drops can be omitted entirely.

At the beginning of a cold it may be helpful to rub a liniment, such as camphorated liniment, on the child's chest and upper back until the skin becomes slightly pink. The chest and back should then be covered with a broad piece of flannel. This can be repeated two to three times a day. Camphorated liniment is cheaper and more effective than the highly advertised Vick's Vapo-Rub. Mustard plasters should be applied only when the child has acute bronchitis with or without pneumonia. A physician should give the appropriate direction as to the application of mustard plasters.

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WORKERS POISONED IN AUTOMOBILE INDUSTRY

by George Morris

HOSPITALS of Detroit, Flint and other automobile centers are receiving every week hundreds of victims of lead poisoning, the most widespread and serious industrial plague. While lead-poisoning is one of the oldest known occupational diseases, it is only during the past year or two that it received attention as a serious menace in the automobile industry.

What caused this sudden spurt in the number of victims of lead poisoning? How widespread is the plague? How is the disease met by the plant management? Are the present labor laws adequate to meet the menace?

As I searched for an answer to these questions I learned of an almost unbelievable situation. The employers are doing everything possible to hide the facts while government and health authorities are shutting their eyes to the situation. To make matters still worse, leading hospitals in almost all cases are especially favored by certain of the large automobile companies and often have an agent on the hospital boards of directors.

While there are no statistics available on the extent of lead poisoning we do have the recent findings of a committee headed by Dr. Carey McCord, of the industrial Health Conservancy Laboratories of Cincinnati, gathered in its investigation during the 1934-35 automobile production season. The findings, based on research while they were engaged by the automobile companies in Detroit, were presented to the 66th Convention of the American Public Health Association. The committee estimated that about 4,000 workmen have been injured by lead poisoning during the 1934-35 production season.

This, however, is undoubtedly only the number that required hospital treatment, or have become disabled for factory work. Several weeks ago I learned through one who is closely associated with three lead-poison laboratories

maintained in the plant of the Briggs Body Corporation, that since the laboratories have been established, about a year ago, there are on file almost 13,000 blood tests taken among the employees of the plant, that show considerable amounts of lead absorption by these workers. We will see later why a majority of these were neither warned of the threatened disease nor given treatment.

McCord's Committee in its report explained the causes of the great increase in lead poisoning as follows:

"The automobile production season of 1934-35 marks the outstanding epidemic of lead poisoning in this country for at least the past decade.

"Recent trends in body design have led to one-piece all-metal bodies with non-air-resisting contours. The manufacturing processes call for the filling in of all welding depressions and other indentations with a lead-tin alloy. This leads to the use of molten lead pots and torch work, which in turn are followed by various processes for the smoothing down of the leaded surfaces, including power grinding, hand filing, sanding, etc. As a result, the atmosphere of these workrooms is polluted by harmful quantities of lead-dust and lead-fumes. Occasionally as much as 1,100 milligrams of lead dust have been encountered in 10 cubic meters of air, which amount of air approximates the quantity of air breathed by the average workman during the usual work day."

And further:

"If the figures obtained in studies in a limited number of plants may be extended to the industry as a whole, it is possible that as many as 4,000 workmen have been injured to some extent during the 1934-35 automobile production season."

So when you admire that nice smooth finish on present-day bodies, you may also picture to yourself a workroom filled with lead dust, and



Russell T. Limbach

The Timekeeper

workmen who eventually begin to get severe pains in the abdomen, headaches, vomit, get dizzy, constipated, anemic, weak, nervous, and who are finally forced to give up.

SO large is the number of lead poisoned cases that companies deal with hospitals on a "mass production" scale. A larger number of mild cases are treated at plant hospitals. There is a certain section in St. Mary's Hospital where a batch of victims will always be found. They are from the Briggs Corporation, largest automobile body maker. The patients are treated only by a special Briggs doctors. Only the company knows anything of their cases. A patient is kept in the hospital for two or three weeks, usually given injections, pronounced well, and put back to work.

Physicians who frequently get cases of lead poisoning explained to me that the patient must get treatment and complete rest for at least two months, sometimes as much as six months and longer. It takes that long to drive the lead out of the system. In fact one is never completely cleared of lead. Lead victims must never get near jobs that again expose them to lead as they are very easily susceptible to further poisoning.

As the companies are obliged to pay up to \$18 a week sick benefit to poison victim during hospitalization, the doctor rushes them through. They are often returned to jobs in other departments, away from lead, but the worker is unable to last long, or do his work efficiently. He either leaves the job in disgust, or is laid off at the first opportunity.

A talk with various lead poison victims soon illustrates how the scheme works.

"This is the third time they have me here," a thoroughly disgusted Polish worker in St. Mary's told me. "After being here two weeks, the company doctor said I was O.K. When I got back to work the foreman told me he doesn't want lead poisoned people.

"They put me on an outside job. After working a day I got my dizzy spells again and stayed in bed for three days. Afraid to lose my job I went back to work, but I couldn't last more than a day, and they sent me to the hospital again.

"I don't know what will happen next. But I know what you're just no good any more after you get lead into yourself."

Another worker in the same room told me he lost over 30 pounds since he began to feel the effects of lead. He just dropped on the job one afternoon. "I saw eight go on my floor, taken with lead, since we started this season" (October), he said to me. "And it got me too."

An old Finnish worker who worked as a metal finisher at Briggs has been in St. Mary's Hospital for over six months, I was informed. He is a case of chronic lead poisoning and has apparently contracted other ailments due to that condition.

In the hospitals the workers are kept under as much discipline and observation as in the plant. For fear of losing the \$18 a week or the chance to get back on a job, patients dare not protest or talk against the company. I was particularly struck by the prison atmosphere in the section of the hospital where the Briggs victims are.

Many lead poison victims become serious medical problems. In some cases lead affects the brain, resulting in mental disorders, including insanity. Some get convulsions, become nervous wrecks or paralyzed. These are, of course, the most severe manifestations of lead poisoning.

Charles Somal, who was once a healthy metal finisher at the Dodge plant, is today in Eloise Hospital for the insane. His mental derangement was a development from chronic lead-poisoning, according to a diagnosis which was made at the Harper Hospital where he was first sent.

But we must take into account more than the direct effects of lead-poisoning. Victims of lead poisoning are not restored to full health. They become changed people, considerably weakened, and an easy prey to other diseases. Thus, while we do not hear of many deaths directly due to lead-poisoning, many who die begin their ill health with lead-poisoning. The doctor, of course, makes out a death certificate only according to the apparent cause of the death.

BUT perhaps the most serious feature is the way the employers met this lead-poisoning epidemic. The manufacturers are certainly interested in doing something about the situation, because the plague proves very costly to them. Furthermore, they fear that if the seriousness of the disease becomes too apparent they will

not be able to hold off legislation that will make them liable to disability compensation for industrial diseases in general.

They have therefore engaged the staff of Dr. McCord who is regarded as an expert on lead-poisoning. McCord has used a blood test to determine the lead content in the blood. It is known as the Basophilic Aggregation Test. The above-mentioned report, submitted to the American Health Association Convention, was mainly based on the experience with this blood test concluded from 8,000 tests in the industry.

The test is based on the theory that lead absorption destroys the red blood cells. The relative change in the blood therefore can also indicate the approximate amount of lead absorbed. Lead-exposed workers are, therefore, forced to take blood tests often; in the Briggs plant every month.

Early detection of lead absorption is an advantage because the worker can be warned in time to take treatment, and hygienic experts are able to locate the danger spots in a plant. But to the company there is a much more important advantage. The blood test shows to the company the approximate dead-line—the time when the worker should be discharged so that he won't get sick while still in the employ of the company; thus, the company does not have to pay him sick benefit and stand his hospital expense.

Having instituted lead laboratories at the Briggs Corporation, the staff of Dr. McCord is now employed at the Dodge plant. Today only those get sick on the company's hands whom the test does not catch. The plant is notorious for its frequent hiring and firing.

But cheating and discharging workers is only half the story. Admittedly the test is by no means perfect. The result is that many who are developing lead-poisoning are missed. On the other hand the worker knows nothing of what the test shows. All he knows is that one fine day, in a week or two, he is "laid-off." Instead of taking treatments the worker is out search-

ing for another job. If he is so "fortunate" as to get a lead-exposed job soon, it isn't long before he becomes a serious case. To avoid employing workers for whose sickness another employer is responsible, a blood test is taken of metal finishers when they are being hired.

THE state government took little cognizance of the situation. The 1935 Michigan Legislature again turned down a proposal to include occupational diseases in the present Workmen's Compensation Law. The Supreme Court ruled that lead is absorbed "gradually, so it isn't an industrial accident."

The U. S. Department of Labor in Michigan has neither the interest nor the facilities for proper inspection of the plants so as to at least enforce existing inadequate laws. There are laws providing regulation of air in a plant, fans, dust-collectors and other safeguards. At the Detroit office of the Department of Labor and Industry, I was informed that there were only two men to inspect the plants in the entire industrial area of the city and county.

Recently some improvements were instituted. Power grinding was substituted by hand filing. This process does not create as much lead dust. But the fumes caused by the torch-soldering remain as before. Significantly, the best improvements were made at the Chrysler plant, where the workers are organized to some degree and have fought out the issue.

These improvements, however, are only a soothing salve. So serious has become the issue of compensation for occupational diseases and of more adequate protection, that the manufacturers are in fear of laws that will prove far more costly in the long run.

It should also be mentioned here that lead poisoning is only the most widespread occupational disease in the automobile plants. The industry also contributes a large number of victims of silicosis and of many other diseases due to chemicals used in the painting of cars, treating of metals, and so forth.

There is perhaps no other industry that throws off as many human wrecks as the automobile and auto-parts industry. If lead-poisoning and other industrial diseases of the automobile industry were recognized legally as compensated occupational diseases, there would be at least a small degree of repayment for the destruction of health and life.

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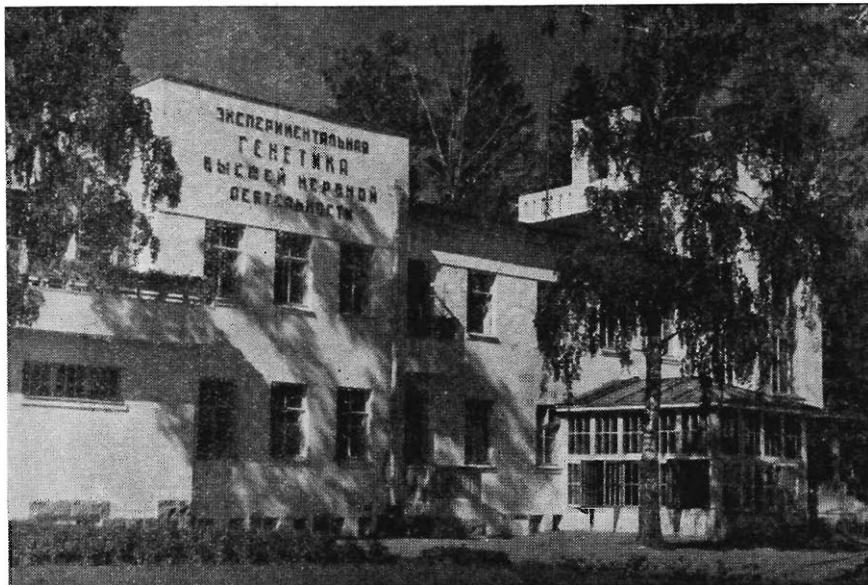
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SCIENCE MOURNS

IVAN PETROVICH PAVLOV, the Soviet physiologist who died in Moscow a few weeks ago at the age of eighty-six, typified for more than half a century all that is finest in the man of science. He combined objectivity with a singleness of purpose and an untiring devotion to research. Only a few months before his death he still retained the freshness and vigor which were at once the delight and the inspiration of the hundreds of students who came from all parts of the world to study his work. An indication of the importance of his work is afforded by the statement of Bertrand Russell, the English philosopher, who said that Galileo, Newton, Darwin and Pavlov created distinct epochs in the history of the natural sciences.

When still quite young, Pavlov became interested in the natural sciences, and at twenty-one entered what was then the St. Petersburg Academy. He quickly came under the influence

The new Pavlov Laboratories in Leningrad.



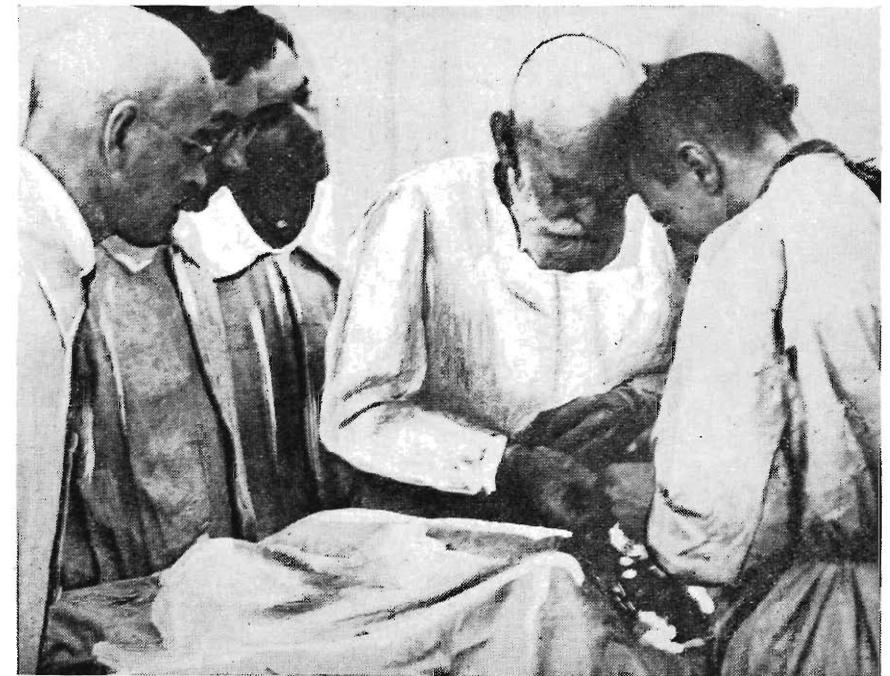
Ivan Pavlov a few months before his death.

DEATH OF PAVLOV

of Mendeleev and the great physiologist Sechenov, from both of whom he derived the inspiration which led him to his ultimate work. It is of interest that both these men were regarded with suspicion by the authorities of czarist Russia, and at times were involved in difficulties because they addressed themselves in simple language to audiences of workers.

Having completed his academic studies, Pavlov broadened his experience by association with Botkin, a leading physician. In the course of his subsequent work, he made important discoveries dealing with the heart and problems of circulation. Pavlov pursued these investigations for ten years, developing the habit of thoroughness and careful checking of every detail of his work. Following several years spent in Germany, he returned to Russia and applied himself to the study of problems of digestion.

Pavlov supervising the work of his assistants.



For many years he confined himself to this field, making further discoveries of such fundamental importance that he was awarded the Nobel prize, the greatest distinction possible for a scientist.

Not the least of his contributions was the introduction of humane methods of animal experimentation. Previously such experiments had been done on half-poisoned animals, nailed to boards, and subjected to crude and brutal operations. In his surgery on animals, Pavlov used the same anesthetics, antiseptic precautions and care after operations as were used on human beings. In this way the animals survived for years instead of hours, permitting the most detailed study of their functions and reactions.

About 1902, he turned his attention in a different direction, to the part played by the brain in governing the responses of animals to various situations. He elaborated a new field of physiology, what has since come to be known as "conditioned reflexes." A reflex is an automatic response to a stimulus. A stimulus is an activating factor, or a circumstance which produces some type of reaction. For example, if one touches a hot object and pulls away, the burning is the stimulus and the withdrawal is the reflex. In such a case it is essential for the protection of the body that the response be immediate. A delay of a fraction of a second might be serious, and even before one is consciously aware of the pain, the hand has been withdrawn. This reaction is entirely automatic—one does not think about pulling the hand away, one does it spontaneously.

There are innumerable such reflexes. When a bright light flashes in the eyes, we automatically close them, and if the light is painfully bright, we even turn the head away—all this without any conscious direction or control of the response. It is the automatic nature of the reflex which is its important characteristic.

IN the course of his experiments on digestion in animals, Pavlov had noticed that at feeding time the secretion of saliva was produced not only by the sight and smell of food, but even by the footsteps of the man who fed the animals every day. Starting with this simple observation and others of a similar nature, he began to investigate the problem of the relation between response (behavior) and environment. Although his studies were to large ex-

tent limited to various ways of affecting the secretion of saliva in dogs, the results and conclusions are of such a nature that they are readily applicable to the problem of human behavior.

Pavlov found, for example, that if he rang a bell each time he fed a dog, the animal soon responded to the ringing bell in the same way as it did to the giving of food, namely by pouring out saliva as though it were getting ready to eat. Even though there was no food in the room, ringing the bell immediately produced the reaction and this response could be obtained a considerable number of times before the animal "unlearned," and failed to respond unless food was again given. Similarly, Pavlov discovered that if a light was flashed at the same time that food was given, the dog soon responded to the flashing of the light alone, without food.

Pavlov varied these experiments in hundreds of ways, teaching the animals to distinguish between different colors, different tones, and various figures. In each case it was possible to make the animal respond exactly as though he were being fed. This process Pavlov called "conditioning," which is simply the building up of new associations or habits of reaction.

With literally thousands of experiments he demonstrated the fact that the behavior and responses of his animals could be controlled (conditioned) in innumerable ways, by alterations in the situations under which they were fed. He "unconditioned" them at will also.

It appeared perfectly clear to him that the dogs' reactions were to a previously unthought of degree dependent on the dogs' training and environment. He stressed also that if these rules applied to so simple a reaction as the production of saliva, then how much more so did it apply to human beings and their responses to the complex emotional and intellectual situations of life. He felt that the role played by the "soul" and the "spirit" must yield to the objective and scientifically demonstrable influences to which he subjected his animals.

His work aroused widespread interest and the "conditioning factors" were investigated in human beings. It was not difficult to demonstrate how large a part such conditioning plays in our every-day life.

Consider, for example, the automobile driver who is engaged in conversation when a traffic

light turns red. Without even thinking about the steps involved, without consciously noting the change in the light, he applies the brake, shifts gears, and brings his car to a stop. Similarly, when the light again changes to green, he may be entirely unaware, consciously, of the change, but starts the car, and proceeds on his way. He has been conditioned by long experience to behave in a certain way when the environment is altered in some respect—in this case, by the changing light.

Another example is afforded by the woman sleeping in the same room with her ill child. A train roaring past her home will have no disturbing effect on her sleep. But let the child whimper ever so softly, or turn restlessly in the bed, and the mother is instantly awake. She has been so conditioned by her love for the child that she is on the alert even when asleep.

How does an infant come to recognize a given person as its mother? The infant slowly begins to associate a certain face, a certain manner, as belonging to one who feeds it, who pets it, who provides for all its needs. The infant becomes conditioned to these physical characteristics, and in this way there is built up the mother-child relationship.

In the course of daily life we react dozens of times purely automatically to a variety of situations, purely on the basis of this conditioning. It is unquestionably a factor of the greatest importance in guiding and controlling our behavior.

THIS was materialism of a decidedly bold sort. It gained for Pavlov enemies who sensed the danger of teaching that man is a creature of his environment, and that if man would improve his lot, he must first change his unfavorable environment. Though Pavlov denied that he was fundamentally a materialist, the fact is attested by all his work and even by many of his statements in the lectures he gave all over the world.

Twenty-five years ago he expressed himself as follows: "When the negative features of the Russian character—laziness, lack of enterprise, and even slovenly relations to every vital work—provoke melancholy moods, I say to myself, no, these are not our real qualities, they are only the veneering, the damning inheritance of slavery. It made a parasite of the master, freeing him through the unpaid work of others from the practice of natural and normal striving to obtain his daily bread for himself and

*Pavlov
presiding
at the
International
Congress of
Physiologists
with
Professors
Lapique
and
Hill of
France
and
England.*



family, from the necessity of making his way in life. Of the slave it made a completely passive creature, without any vital perspective, for continually in the way of his most natural aspirations arose an insurmountable obstacle in the form of the powerful egoism and caprice of his master." He points out that proper care and training will produce normal reactions, more suitable to human beings. "If parents and instructors of all ranks will make their chief problem the strengthening and developing of this reflex (of purpose, the will to achieve) in the plastic masses, *if our society and state will provide a full opportunity for the exercise of this reflex*, then we shall become that which we should and can be, judging from many epochs of our history and from some strokes of our creative strength."

At the time of Pavlov's death, the newspapers wrote at considerable length that he was an active opponent of Communism, that he was hostile to the Soviet government, that here was a grand old man who dared to speak out against a "tyrannical" state.

Pavlov was the son of a priest and the grandson of a church functionary. His early education was received, not in public schools but in the schools of the church. It was inevitable that with this background he should be unsympathetic to a regime which taught that the forces of religion in Russia, where the church was one of the greatest landowners and where church officials were among the wealthiest officials in the country, were enemies of the workers and peasants. Although Pavlov was convinced at an early age that the slavish and almost bestial state of the Russian peasant was due to exploitation and the cruel neglect of the most elementary human rights, the anti-religious teachings of the State weighed heavily on him during the Revolution and during the early years of the establishment of the regime.

It did not take Pavlov long to realize, however, that the primary concern of the Soviets was with the welfare of its citizens, and this welfare being so closely bound up with scientific progress, scientists gained a recognition which in czarist Russia was unheard of. Where previously he had been granted a total of ten or twelve assistants, he now had forty. He became progressively more impressed that the government against which he had been so bitterly outspoken, nevertheless granted him more

buildings, more assistants, more funds than he had ever had at his disposal for the work which meant so much to him. He was honored everywhere. Gradually the weight of his early prejudices became less and less.

ABOUT 1927, when it was necessary for him to undergo a serious operation for gall bladder disease, the officials, who were aware of the remnants of his hostility, suggested that a famous foreign physician perform that operation. Pavlov absolutely refused even to consider this, insisting that only a fellow Russian operate.

On one occasion, when talking with Professor Banting, the discoverer of insulin, Pavlov spoke enthusiastically about his plans for the expansion of his laboratories, plans which required perhaps fifteen years for their completion. Banting was so impressed that he subsequently remarked, "The most outstanding thing about the Soviet Union is the high premium placed on science and scientific workers." Professor Cannon of Harvard expressed himself similarly: "In the Soviet Union the funds made available for the development and prosecution of scientific studies is greater than in any other country in the world."

How, then, could Pavlov fail to be won over to the support of the Soviet government which felt exactly as he did, namely, that the hope of the race lay in the application of the discoveries of scientists, that it is necessary not only to discover the laws of science but to apply them widely for the benefit of all mankind? Pavlov did not simply become neutralized in his hostility—he became an active and ardent proponent of his country's program and methods. After returning from a trip to London, he said: "I am becoming more and more imbued with the idea that the great social reconstruction carried out by our country and our government will be completed successfully. The basis of the system of our fatherland is respect for labor." In 1935, while demonstrating his methods and showing his laboratories to hundreds of physicians from all parts of the world, visiting the Soviet Union as delegates to the International Physiological Congress, he expressed his gratitude "for the earnest help and attention that the government had given," and with his customary modesty, added that he hoped he was worthy of the extraordinary assistance given him!

HOME CARE OF FEVERS

*What fever means and how it should be treated
by the layman*

FOR a proper understanding of the treatment of fever, one should understand the causes and basic mechanism of this body reaction. There are many causes of fever. An infection in some part of the body will make the temperature rise. For example, a sore throat or an inflammation of the tonsils may cause a rise in temperature, in some cases, to over 104 degrees Fahrenheit. Acute diseases, such as pneumonia, are always accompanied by high fever.

Sometimes a person may have a chronic fever as a symptom of a chronic disease such as tuberculosis. In these cases, fever is usually known as low-grade fever and implies a slightly elevated temperature. We are not concerned with this type of fever at present, inasmuch as it requires special discussion.

Much has been said in the past as to why a body reacts to disease with an increased temperature. At one time it was believed that the fever was caused by poisons in the body and was therefore a harmful reaction. Now, however, it is quite generally agreed that increased temperature is a defense reaction on the part of the body to enable it to combat germs and their poisons. But if the fever is very high or prolonged, it is not only harmful to the bacteria but also to the body cells and therefore must be reduced by appropriate treatment.

The treatment falls under four general headings:

1. Rest
2. Diet
3. Fresh Air
4. Local Applications.

1. *Rest:* Due to the destruction of body tissue, rest of mind and body is absolutely essential. The body tissues put up a tremendous fight against the infection and all energy must be conserved for that purpose. Rest means rest in bed, of course, and freedom from all dis-

comfort and unnecessary exertion. The pillow should be kept soft by shaking and turning it several times during the day. The bottom sheet should be free from deep creases and moisture.

2. *Diet:* The necessary energy and repair of body tissues must be derived from food consisting essentially of proteins, carbohydrates and fats. Protein is used in the body to build new tissues and to repair damaged cells. Protein is the chief constituent of meats, eggs, fish, and milk preparations. Carbohydrates and fats are necessary for heat and energy and are derived from cereals, vegetables, fruits, bread, drinks containing sugar, broths containing barley, milk, cream, butter, oils and so forth. If proper diet is not maintained during fever, the body will be forced to use its own tissues and this will result in loss of weight, loss of strength and lowered resistance.

The value of food to the body is figured in terms of calories. A calorie is the amount of heat necessary to raise one gram of water to one degree of temperature by centigrade measure. It is estimated that the healthy person at rest requires 2300 calories to meet his daily needs. But a resting individual with a high fever requires from 2800 to 3000 calories.

The loss of appetite, the poor digestion and digestive disturbances usually make it impossible to provide the full caloric needs during the early stages of acute fever. Little effort should be made to force the diet on the patient particularly when the acute stage is of short duration. But when the disease is prolonged or when complications set in, it is then necessary to increase the diet to meet the body needs. Fluid diet such as beef juice, thinned, strained cereals, egg-nogs, custards, junkets are usually given in the acute stage. These are concentrated foods and have a high caloric content. Water should be given frequently, whether the patient wants it or not. Water helps to keep the

mouth clean, relieves thirst, dilutes and helps eliminate poisons. Fruit juices may also be added to the diet.

3. *Fresh Air*: Plenty of fresh air is desirable in all infectious diseases. At the same time, the patient must be protected from drafts, exposure and chilling. Plentiful, but light bed clothing should be used because the patients usually perspire and because of their lowered resistance they are more susceptible to the slightest drafts.

4. *Local Applications*: A daily cleansing bath is essential for comfort and cleanliness and to stimulate circulation. The patient should be washed in bed. The bath should be given quickly and the patient moved as little as possible to prevent chilling and over-exertion.

Alcohol sponge baths, three or four times a day, are very effective in reducing fevers. The alcohol evaporates quickly, thereby cooling the body surface. One part of alcohol to three parts of water should be used. The alcohol should be warmed to prevent chilling. Care should be taken to prevent the bed clothes from becoming damp. Wet bed clothes and creased bottom sheets may irritate the skin and cause bed sores. This condition may also result from lying too long in one position. Special attention should be given elderly people.

Headaches are very common to the patient with a fever. At times cold applications to the head and forehead will relieve them. In any event, the soothing effect is helpful. An ice cap should be half filled with small, smooth pieces of ice. If the ice is not smooth, the ice bag may be damaged. If cold water is permitted to run over the ice, the pieces will be considerably smoothed. Remove the water which forms in the bag from the melted ice.

An ice cap should never be applied directly to the skin. The bag should be covered, if possible, with a piece of flannel both to absorb the moisture that forms on the bag and to protect the tissues from a too rapid withdrawal of heat. The flannel will also prevent the moisture from wetting the bedding and the patient.

Cold compresses to the forehead are also used. The compress is made from several

layers of old muslin in order to retain the cold longer. The compress should be kept moist and changed frequently enough to maintain the desired temperature. It is advisable to have a basin containing ice and a small amount of water at the bedside. While one compress is on the head, a second one is moistened so that it will be ready for use. The compress should be cold and moist when applied, but not moist enough to drip and dampen the pillow.

Because secretions from the eyes, nose and mouth are usually increased during fever, these places must be watched to prevent complications. A mouth that is neglected may result in sores on its inside lining. Salt water or Dobell's water (which may be obtained at a drug store without prescription and at small cost) are effective. The mouth should be rinsed with either of these solutions at least four times a day. If the eyes are red, hot compresses of boric acid solution or plain water, two or three times a day, are beneficial. Excretions from the nose are to be handled with extreme care so as to reduce the possibility of infecting others. Paper tissue should be used because it can be easily discarded or burned. If crusts form in the nose, mineral oil on a piece of cotton or vaseline will soften the crusts and make their removal easier without the possibility of injuring the lining in the nose.

Elimination through the bowels and kidneys must be closely watched. If necessary, a mild cathartic or a bicarbonate enema should be given. A bicarbonate solution is made by dissolving a teaspoonful of bicarbonate of soda in a pint of warm water. From two to three pints of the solution are to be used for adults and one to one and a half pints for a child. More should not be given as it would cause overstretching and injury to the intestinal walls. The temperature of the solution should range between 108 to 110 degrees Fahrenheit.

A urine examination is important in order to determine whether the kidneys are functioning properly. It is through the kidneys that most of the poisons are removed and overwork may impair them.

The use of drugs must be left to a physician.

PREGNANCY AND ABORTION

A YOUNG woman is seated in the reception room of a doctor's office, waiting to be called. In an attempt to overcome her nervousness she picks up a magazine, fingers it, turns the pages rapidly, barely glancing at its contents, puts it back, picks up another, repeats the performance, until at last the door is opened and the doctor is ready to see her.

At the doctor's desk she pours forth her story: her menstrual period is delayed about four days, she has always been regular to the minute, she is certain that she is pregnant, what can she do about it?

Calmly, the physician will note her medical history, examine her and then try to clear up and explain some of her fallacious ideas about the regularity of menstruation.

The young woman is made to realize that this so-called regularity is a myth and that the menstrual cycle may vary from twenty-one to thirty-five days as thousands of case reports from clinics and physicians' records show. The twenty-eight day regular cycle occurs in less than five per cent of women.

Where women have gotten the erroneous notion that the menstrual flow works like a punch-clock system is hard to say. Women should understand that the appearance of the menses is not a simple matter. The onset of the period depends on the cooperative activity of many glands such as the ovaries (female sex glands), the pituitary (situated at the base of the brain), the adrenals (sitting on the kidneys), the thyroid (in the neck), the pancreas (near the stomach), and so forth. These glands constantly influence one another and in turn are affected by the nervous system. Any nervous upset may affect these organs and hasten or delay the period. It is also a matter of medical record that the mind may be so active in influencing body functions that a condition simulating pregnancy may occur in a woman when the woman is not at all pregnant. This

condition is called pseudocyesis. It occurs most frequently in older women who have never had children but in whom the desire for children is very strong. The body reacts to this mental state as if the woman were really pregnant. She stops menstruating, her breasts enlarge and her abdomen protrudes. She develops nausea and vomits because in her mind both these symptoms are associated with pregnancy. When she reaches the fourth month she announces that she feels the baby moving when it is actually gas moving through the intestines that she feels. It is a terrific shock to the woman after she is examined and told that she is not pregnant. There are cases where in order to prevent a severe nervous breakdown it is necessary to continue the deception to the point of actually performing a delivery and then to tell the patient that the baby was born dead.

IF a woman's health has not been normal, if she has had a cold, or is fatigued from overwork or is run down from nervous exhaustion, the period may be delayed. A change in climate from the north to the south, or from the lowlands to the mountains may be sufficient to upset the menstrual cycle. In many chronic diseases such as tuberculosis, diabetes, heart disease, or any disturbances of glandular activity, the periods may be delayed weeks or even months.

The conditions under which delayed periods are normal are during and after pregnancy, during the period of nursing and after the change of life (menopause). Usually, when a woman does not nurse her child, it takes about six or eight weeks for the periods to be reestablished. Some women begin menstruating even while nursing. With the menopause, which occurs most frequently between the ages of forty-five and fifty years, the period may cease for a month, recur regularly for a succession

of months, and then irregularly until menstruation disappears entirely.

Whatever the cause of the delay, *no medicines are effective in inducing menstruation.* (The only exception to this is during the menopause when the administration of concentrated solutions of special hormones may occasionally cause the reappearance of the menses.) No matter in what form it is taken, whether it be pills, capsules, fluids or injections, medicines are of no avail—especially if the woman is pregnant. In these medicines, which may be given to you by your doctor or a friendly druggist, the usual ingredients are a physic such as aloes, phenolphthalein, castor oil or epsom salts, and a medicine which is supposed to irritate the womb, such as tansy, pennyroyal, ergot or quinine. There are reports in medical literature of poisoning from a single dose taken by a sensitive individual or death from repeated doses. These medicines may cause nausea, headache, frequent bowel movements and weakness, *but have no effect upon the pregnant uterus.* Often the doctor, after a lengthy explanation about the ineffectiveness of drugs, will be told by the patient that she has a friend whose doctor gave her a prescription that works wonders every time. With a shrug of hopelessness the physician will then give her something—anything harmless—to divert her mind and relieve the tension of waiting.

When the menstrual period has been delayed only a few days, it is impossible to determine through physical examination whether the woman is pregnant. At least two weeks must have elapsed before sufficient changes have occurred in the womb for the doctor to make any statement about pregnancy. Even then the diagnosis is only presumptive and can only be made with the findings of a previous examination as a standard for comparison. If a woman has a retroverted uterus (tipped womb), or if it is normally enlarged, or if there is a tumor present, or if for any reason it is difficult to explore the uterus with the fingers, the diagnosis certainly cannot be made at an early stage. What diagnosis is made can only be based on the patient's story of a delayed period, nausea, enlarged breasts, and the physical findings of an enlarged, softened uterus. A positive diagnosis can be made only when the doctor can hear the baby's heart, outline the foetal parts or when an X-ray reveals the bony structure

of the baby. And this can only be done when the patient is four or five months pregnant.

ALTHOUGH it is impossible to make an accurate diagnosis of early pregnancy by history and physical examination, there are tests which are of great value. One that is used most frequently, because of its accuracy in from ninety-five to ninety-nine per cent of cases, is the Ascheim-Zondek or Friedman modification. (Professor Bernard Zondek, the man who has been honored by scientists and physicians all over the world for his brilliant contributions to medicine, is today a refugee from Hitler's Germany and is now an exile in Palestine.) Originally, five mice were used for the test; each mouse was injected with urine from the "pregnant" patient, and after 100 hours the mice were examined to see whether any changes took place in their sexual organs. The method now used, the Friedman modification, entails the use of a female rabbit. The patient's urine, collected about one week after the delayed period, is injected into the ear vein of the rabbit. After forty-eight hours, the organs of the rabbit are examined. If the rabbit's womb is enlarged and if the ovaries have blood spots on the surface then the woman is pregnant. This reaction is caused by a hormone (secretion from an internal gland) circulating in the blood of a pregnant woman and excreted in her urine. If the woman is not pregnant there are no changes in the organs of the animal that has been tested. There are many other tests which have been employed for the diagnosis of pregnancy, but all in turn have been discarded because of their inaccuracies.

DR. FRED TAUSSIG in his report prepared for the White House Conference Committee on Pre-Natal and Maternal Care states that at least 700,000 abortions are performed annually in this country, and that this number is an underestimate rather than an overestimate of the actual condition. Other observers have stated that 1,500,000 abortions are performed yearly. In New York City it is roughly estimated that there are at least 100,000 abortions performed yearly. Because many doctors doing abortions are reluctant to answer questionnaires—the federal penitentiary looms constantly before them—accurate figures cannot be obtained.

There are probably thousands of abortions performed on women who are not pregnant. Many women do not go to physicians for an accurate diagnosis and if the menstrual period is a week late they rush directly to the abortionists who emphatically assure them that they are pregnant and advise an immediate operation. It must be said that abortions should never be performed unless a definite diagnosis is made to establish the fact that the woman is pregnant. There is also an optimum time when abortions should be performed. No matter what the reason for having an abortion—whether it be heart disease, kidney disease, disease of the nervous system and so forth—it is best performed between three to four weeks after a missed period.

Since medicines are useless, costly and harmful to the health of the woman, and since abortions in the United States are still illegal and must be performed secretly at terrific expense

and danger to the patient, the only solution to the problem is the use of scientific methods of birth control.

There is a bill pending in Congress to open the mails for the dissemination of birth control information and the sending of birth control devices. At present birth control advice can only be given within state limits and cannot be sent from one state into the other. When this bill is up for a hearing, your representative in Congress should be swamped with letters asking him to support the bill. The opposition is powerfully organized and will not stop at any means to defeat this bill. While the wealthy upper classes have been able to obtain the necessary information wherever and whenever they desired it regardless of the laws, those who have the greatest need for birth control information—the low-income classes—have been unable to obtain it. It is of the greatest importance that this socially significant measure become law.

WHAT BLOOD REVEALS

THE blood consists of two major parts: the blood serum, which is a colorless fluid, and the blood cells. Dissolved in the blood serum are various chemicals, including both food and waste substances, which are transported through the blood stream, into and out of the body tissues. These chemicals are present in the blood of a healthy person in certain normal amounts; but in disease the amounts may increase or decrease. The most important of the chemicals affected by disease conditions are sugar, urea, blood protein, calcium, phosphorus, oxygen, carbon dioxide, uric acid and creatinine. Various tests are employed to determine the exact amount of these substances in the blood.

In diagnosing certain diseases it is necessary to know the amounts of these chemicals present in the blood. For example, when diabetes, a disease characterized by excessive sugar in the blood, is suspected, it is necessary to examine the blood to determine just how much sugar is present.

In certain forms of Bright's disease (nephritis) the kidneys cannot eliminate the waste products carried to them by the blood stream to be excreted in the urine. Therefore, this

waste accumulates in the blood and we find high figures for urea. In rickets, calcium or phosphorus is low. In certain forms of liver disease, the urea is again low.

The blood cells are of three kinds: 1. the *erythrocytes* or red blood cells, which give the red color to the blood; 2. the *leucocytes* or white blood cells; 3. the *platelets*, which prevent excessive bleeding in case of cuts.

When a blood sample is to be taken, the finger or ear of the patient is cleaned with alcohol, and the skin is punctured with a clean needle. The blood flowing through the punctured wound is collected in a kind of glass tube known as a pipette. The pipette is already marked so that a known amount of blood can be drawn into it. There are two types of pipettes, one for the white cells and one for the red cells.

After the required amount of blood is withdrawn, a fixed amount of diluting fluid is sucked up into the pipette. The pipettes are shaken for a few minutes to distribute the cells evenly throughout the diluting fluid, after which a drop of the solution is placed in a special glass device known as a "counting chamber." On the counting chamber are fine

lines very close together. Through the microscope it is possible to count the number of cells between lines. The number of cells in the undiluted blood can then be computed.

The normal figures for the number of cells in each cubic millimeter of blood (there are about 16,000 cubic millimeters in a cubic inch) are as follows:

Red cells 4,500,000 to 5,000,000
 White cells 5,000 to 10,000
 Platelets 250,000 to 350,000

After the number of white cells is ascertained, they are studied further to determine the relative percentages of the five different types of white cells, known as neutrophils, basophiles, eosinophiles, lymphocytes and monocytes.

One other test is of general importance, namely, the hemoglobin determination. The hemoglobin is the coloring matter of the red cells, which serves to carry oxygen from the

lungs. A special tube, called the hemoglobin-tube, is employed for the test. Into it is placed a small amount of dilute hydrochloric acid and a measured amount of blood. The hydrochloric acid breaks up the cells and causes the red material, the hemoglobin, to dissolve. Water is added to the tube until the color exactly matches that of the "standard." The standard is a stained glass rod. The amount of water which must be added to make the solution match the "standard" indicates the quantity of hemoglobin.

What is the use of all this work? It is true that generally the physician can diagnose and treat a case adequately without the information derived from a blood count study. But there still remain times when the diagnosis is difficult and the doctor is grateful for any additional information of the type obtainable from examination of the blood. For instance, in typhoid fever, which is often very difficult

Preparing blood for examination under the microscope.



Drawing blood from a patient's finger.

to diagnose in the early stages, the blood count generally reveals a low white cell count (that is, below 7,000) but the type of white cells known as lymphocytes are increased in number. Therefore, in a case which *may* be typhoid, if the blood count shows this reaction, the physician has additional evidence for his diagnosis. There are numerous other cases in which the count helps the physician to make a difficult diagnosis.

Some diseases can be diagnosed accurately only with the aid of a blood count. These are the so-called blood diseases, a few of which are:

Secondary anemia—This is a condition in which the hemoglobin is low. It must be treated with iron.

Pernicious anemia—This is a condition in which the hemoglobin is low and the red cells are large. It must be treated with liver.

Leukemia—This is a condition in which the white cells are very greatly increased in number.

Agranulocytic angina—This is a condition in which the white cells are greatly decreased in number and the neutrophils have practically disappeared.

Another important use of the count is in checking on the course of a disease and the effect of treatment. In a patient getting X-ray treatment, it is extremely important to take frequent counts as the treatment itself tends to cause anemia and reduction in the number of white cells. Again, the recovery of a pneumonia patient is shown most clearly by the return of the blood count to normal values.

Certain diseases, such as intestinal worms, hay-fever, and some skin diseases cause the type of white cells known as eosinophils to increase in number. Hence, blood counts assist in the diagnosis of these ailments. Malaria can be diagnosed by the finding of the malarial organisms in the blood smear.

In various industrial occupations, blood counts should be performed frequently. This is especially so in industries where benzol or lead is used. Poisoning from these two substances may be revealed by blood count changes long before the worker knows he is sick. When this occurs the worker should be protected from any further poisoning.

Patients often ask the physician to test them for "acid in the blood." The idea of acid in the blood is hokum.

Cosmetic Problems

Dandruff Discussed by a Specialist

For its many readers who have been asking questions regarding the care of the skin and hair, "Health and Hygiene" is devoting a page each month to such problems. Letters should be sent to us accompanied by a stamped, self-addressed envelope for personal reply.

NEAR the top of our list of common and useless things is the shower of scales from the scalp known as dandruff. Prevalent throughout the world, dandruff, or *seborrhoic eczema*, is both a chief cause for baldness and a source of income to patent hair-lotion manufacturers.

Everyone knows what dandruff looks like. The scalp is usually covered with a layer of grayish scales. At first, these scales adhere to the skin. Later, they lie loosely among the hairs. A slight movement of the head shakes them off. The scales look dry but are more or less greasy. The greasier the dandruff, the less frequent the loss of hair. It is the extremely dry type of dandruff which causes the quickest cases of baldness.

Although much has been said and written on the subject, the cause of dandruff is not definitely known. The disease is apparently due to a germ. It also seems to be mildly contagious. It may be caught through the use of the brush or comb of a person with dandruff. There is no agreement among medical men and bacteriologists as to the exact germ. Several germs have been suspected but there has been no proof to pin the offense on any one of them. However, dandruff is always associated with a chronic inflammation of the scalp, which causes the formation and shedding of the dry or greasy scales.

Shampooing. This should be done at least once a week. If the scales come back or the hair gets very greasy in two or three days, shampoo two or three times a week. Although any good face soap may be used, tincture of green soap is recommended. Soak the hair in warm water, apply some soap and rub vigorously with the finger tips. A good lather should be formed. After massaging with the finger tips for five to ten minutes, rinse *all* the soap out of the hair.

Lotion. While there is no specific treatment for dandruff, many lotions and salves give good results. We give here only one form of treatment. This treatment is effective in most cases and is easy to carry out at home.

Apply the following lotion to the hair each morning and night. The lotion should be applied until the whole scalp is moist. It should then be rubbed in with the finger tips. The rubbing in process should take from five to ten minutes. The lotion can be made up cheaply at any drug store.

Resorcinol	2 drachms
Mercury bichloride	2 grains
Beta naphthol	10 grains
Olive oil	3 drachms
Alcohol (70 per cent)	8 ounces

Rubbing alcohol (70 per cent) may be used instead of grain alcohol; it is cheaper and just as effective. For blonde hair, use *acetyl-resorcinol* in place of resorcinol, which may produce an unnatural green color in blonde hair. If the hair gets too dry, because of the use of the lotion, rub in a little olive oil.

Massaging. This may be done with vigorous use of the comb and brush as well as with the finger tips. It should be done during the shampoo and application of the lotion. It should never be done to the point where the scalp becomes, irritated or small abrasions are produced.

Treatment for dandruff must be continued for several months after the scalp appears clean. Later on, it need be done only once or twice a week. This is to prevent the return of the dandruff. Should the scales reappear, the daily treatment must be started at once. The scalp should be watched constantly since dandruff recurs quite readily.

Never use a comb or brush belonging to another person. Have your own personal

brush and comb and do not let others use them. The same applies to hats.

THE country is flooded with hair lotions for which all sorts of claims are made. Some are supposed to make the dandruff disappear by dissolving it. Others are supposed to cure all sorts of scalp diseases in addition to ending dandruff.

So, too, with loss of hair. Doctors are frequently asked: "What is your opinion of the Thomas System? Can they really regrow hair and what do they mean by guaranteeing to make good this claim? Would it not seem that their system actually has some merit since they have offices in forty-five cities in this country and Canada? If their methods of regrowing hair were entirely valueless, would they be able to continue in business on this scale? Surely some or all of the persons who patronize the Thomas System would bring legal suit if they failed to make good on their guarantee. What is your opinion?"

There is no cure for baldness of the ordinary variety. Those who claim they can grow hair on bald heads are charlatans. There is a type of baldness called *alopecia areata* (baldness in spots) which may occur in children or adults and which is curable in most cases. The charlatans probably point to such cases in proving their claims of cure in ordinary baldness. The fact that the Thomas System has so many offices and is so successful financially does not prove that they have any cure in their possession. Unsuccessful results are blamed by them on some peculiarity of the patient that makes him fail to respond to the treatment.

Victims do not sue such firms because they are usually ashamed to make public their efforts to cure their baldness. Furthermore, suits against such firms are rarely successful for the following reason: the Medical Practice Acts are extremely inadequate because the laws are passed after being censored by the rich and powerful lobby of drug companies and, therefore, are full of loopholes and practically useless even though the fakes are actually harmful. These medical fakers are rich (they take in nearly one billion dollars a year!) and they employ the best legal talent; their victims can never hope to match such lawyers.

And so, since most victims are ashamed to tell their friends, these advertising fakers keep

dragging in thousands of those who believe everything they read.

The manufacturers of hair tonics and the hair culture institutes have not the slightest scientific basis for any of their claims. The government offers no protection to the people who have been fooled and robbed by these fakers, and the latter are well aware of this.

The larger hair restoring firms maintain chain stores full of all sorts of mechanical and electrical gadgets to dazzle the victim and build up false hopes. Smaller stores are similarly equipped, although on a less pretentious scale. The customer goes through a sort of mumbo-jumbo ritual in which he passes through the hands of several attendants who bedeck him with towels and assault him with electrical buzzers and vibrators, lotions of several odors and colors, manual massage accompanied with bizarre and useless flourishes, and, finally, baking and drying machines and Alpine lights.

Not one hair can be brought back to life despite all this treatment. That part of the hair which we see above the surface of the skin is called the shaft. The shaft is dead matter. The shaft passes through a minute canal in the skin. This canal is known as the follicle and leads to the hair root. The root is made up of living cells. It is the growth of the hair root upwards through the follicle which produces the hair.

After hair has grown to its full length, it remains at that length for two or three months. It then falls out, only to be replaced by a new hair. So long as the root is alive, hair will grow. No hair will grow after the root is dead. Definite baldness occurs after many roots have died. Since we do not know how to bring these hair cells back to life, or how to replace them, there is no cure for baldness at the present time.

However, most loss of hair is due to long-standing dandruff. We are at least able to stop further loss of hair in such cases by removing the dandruff. But if the disease is not ended, dandruff will, after a time, cause the death of the hair roots. Therefore the treatment described above should be started at the first sign of dandruff and carried on persistently for several months. Do not become alarmed at seeing many hairs come out after the application of the lotion and massage. If the roots are still alive, new hair will grow.

THE MEDICAL BOARD ADVISES:

Convulsions

Lakeland, Fla.

To the Medical Advisory Board:

My daughter is troubled with some kind of sickness which I am worried about. She gets choking spells and gasps for breath as if her breathing was stopped. Her mouth closes tight and is hard to open when I try to open it. Her eyes roll and after she comes to, weakness overtakes her. She knows nothing of her state. The spell comes early in the morning, and has happened twice, three months and five days apart. She will be five years old in February and has never been sick or showed any sign of any kind of illness. She has always been healthy and robust. When the first spell happened, we took her to a doctor and he tested her blood and also her feces for worms. He said the tests were negative. I should like to know the nature of her illness. What should be done when the attack comes? Is water good to put in her mouth or is it best to leave her alone? Won't such spells cause her to choke? We are very worried and want to know what to do.

—P. A.

Answer—It is very difficult to tell you with any degree of certainty what the exact nature of the spells that your child has had from the description in your letter. If your child is perfectly normal in every other way as you describe and has had two spells in her entire life, then it is very possible that she has a form of epilepsy which is found occasionally in children. The child usually acts a little queer before the fit comes on, and during the fit, which usually lasts several minutes, the body stiffens out, foam appears at the mouth, the eyes roll back in their sockets, sometimes the arms and legs thrash about, then the child relaxes and usually sleeps for at least several hours. There is no danger of the child choking to death during the attack. Sometimes the tongue is bitten, so it is advisable to place a piece of wood (like a lead pencil) wrapped in gauze between the teeth and see that the tongue is not caught between the teeth. Do not try to put water or anything else in her mouth during the time she is having a spell. We should like to give you more advice, but it is sometimes necessary for

a doctor to be present at the time of the convulsion before a definite opinion can be given you.

It is very questionable whether worms will cause these spells. If you can, have your child examined by a doctor who specializes in treating children (a pediatrician). If necessary, take her to a large city nearby, where you will be most likely to get a correct opinion of your child's condition.

* * *

Baby's Bath

Cincinnati, Ohio.

To the Medical Advisory Board:

I was told at the clinic that I must give my baby, aged seven months, a bath every day. There is no hot water where we live and the house is often very cold. I would like to know if it hurts the baby if he does not get a bath every day. Will you please tell me also what kind of soap to use.—A. D.

Answer—It is the opinion of most pediatricians that a daily bath for infants from three weeks of age to about one and one-half years is advisable whenever convenient. There is, however, no evidence that there is any harm done if this procedure is not rigidly followed. The only precaution that must be kept in mind is that the baby's skin should not become irritated from excessive perspiration or from soiled diapers.

People who because of economic difficulties are forced to live where steam and hot water are not available need not feel that the baby will not develop as normally as the baby whose parents have these conveniences. Many premature babies are given nothing but oil baths for the first three or four months of life. And if you do not have warm water and a warm room use plain olive oil to cleanse the baby's skin and a sponge bath of water with castile or Ivory soap every other day until warm weather comes.

If you try to give a water bath, the temperature of the room should be between seventy-eight and eighty-five degrees on the Fahrenheit scale and the temperature of the water should be between eighty-five and ninety-five degrees Fahrenheit. The scalp

The doctors of the Medical Advisory Board, including specialists in almost every field of medicine, will answer readers' questions on health and personal hygiene. All questions must be signed and accompanied by a self-addressed, stamped envelope.

can be kept clean by the use of olive oil daily, and when scales form (the so-called cradle cap) the oil should be permitted to remain on the scalp overnight and should be combed out with a fine comb the following morning.

* * *

Coated Tongue

Hartford, Conn.

To the Medical Advisory Board:

I am a married man thirty years of age, five feet five inches in height, and weigh one hundred and twenty pounds. My only trouble is a white-coated tongue. I feel very well and have plenty of energy.

I was on a strict diet for four months, but my tongue remained the same. I then went to a doctor and he prescribed drops. He also recommended me to eat everything in order to gain weight. My tongue is still heavily coated.

I have tried both fasting and drinking fruit juices but without success. I took heavy doses of castor oil without any results. I hope you will suggest or prescribe something for my coated tongue.

—Y. L.

Answer—Your only trouble is that you think or believe that a white-coated tongue is serious. One can be in perfect health and still have a heavily coated tongue. This seems to be the case with you, since, in spite of all the self-imposed treatment, you have managed to remain well. Your method of using no laxative and eating everything sounds like the best plan so far.

Coating of the tongue is due to the accumulation of food particles together with the peeling flakes of dead skin that are constantly being shed by the tongue. The body is constantly producing new skin as the old outer layers of skin are scratched, rubbed or washed off. Similarly, the tongue is constantly rubbed, and where the flakes of skin that are ready to be discarded come off easily, the tongue maintains its pale red color. Where the peeling skin tends to stick to the tongue, it accumulates as "fur" or coating. Food particles also stick to the fur and bacteria may grow there.

Since the fur will not wash off of its own accord all you have to do is to wash it off yourself. To do this, use a soft tooth brush and some tooth powder.

Coating of the tongue may occur in cases of fever, stomach and intestinal troubles, nose and throat infections, and bad teeth or gums, but since your doctor could find little more than underweight, we assume the absence of more serious causes of furred tongue in your case.

* * *

Hernia

Phoenix, Arizona.

To the Medical Advisory Board:

I have been advised to undergo an operation for hernia. This, of course, doesn't appeal to me. I know many people with the same condition who do nothing about it. No doubt their cases are not very serious.

Cannot nature, with the help of a truss, repair the damage?—M. G.

Answer—The current medical belief is that a hernia is the result of a weakness of the muscles and other structures of the abdominal wall. One is born with this weakness and the hernia only appears after a period of stress or strain.

As to treatment, at the present time, the feeling of the majority of doctors is that operation is the only real cure for hernia. The use of a truss will give only temporary relief and rarely cure the hernia, except in very young children. The results of operation in young adults under thirty-five are very good in competent hands. There is another method of treatment of hernia, by injection. This method is still in the experimental stage and is not applicable to all hernias.

At the present time, operation offers the best chance of complete cure. Whether or not you should be operated upon depends on the amount of inconvenience or disability your hernia causes. As you point out yourself, many people get along well without operation.

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