

Herald of Health

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Unpedigreed Children

I KNOW a man who has a dog that's got a pedigree,
And he is just as proud of him as any chap can be,
And careful, too: he never lets him loose except he's there
To see he do-sn't run away and lose himself somewhere.
He never goes to bed at night until he's been to see
His fifty-dollar dog is in the place he ought to be.

I know a chap who owns a horse, a splendid thoroughbred,
He never eats his meal until the animal is fed;
And every minute he can spare, out to the stable goes,
To comb and brush his glossy coat or gently rub his nose.
No stranger's hands have ever tugged this horse's silver bit—
They might abuse his mouth, and so he couldn't think of it.

I know a man, the father of three splendid, manly boys;
But when he's home, they're not allowed to make the
 slightest noise;
And they can roam the streets at will, and play with whom
 they choose,
And he is not at all afraid that one of them he'll lose.
In strangers' hands they're often left to do just as they please;
For boys are not at all like dogs with splendid pedigrees.

Whene'er I see a man who owns a fifty-dollar pup,
Or keeps a thoroughbred that he alone must harness up;
When'er I see the care that's paid a bulldog or a horse;
I always feel a touch of pain, of pity and remorse,
Because I think of boys and girls about me everywhere,
Who really need, but never get, such tender, watchful care.

—Selected.



General Articles

Milk—No. 2

W. HOWARD JAMES, M. B., B. S.

MILK, we have stated, is the natural food for the young. It exactly corresponds with the composition, both in quantity and quality, of the animal it is designed to feed. For the adult, milk is not a perfect food. It is in the first place too bulky, eight pints daily being necessary to supply the heat and energy required by the adult man; and again, it contains too large percentage of the tissue building material (proteids) and too small quantity of carbohydrates—energy producing material. To obtain sufficient energy from milk, when used as a sole diet, 140 grammes of proteid must be taken. It is now generally agreed by modern authorities that about 100 grammes of proteids should be taken daily, and that when more than this amount is taken there is excess of nitrogenous waste products, which give the excretory organs, the liver and kidneys more especially, excessive work, and thus lay the foundation for such diseases as gout, rheumatism, and various skin affections. There is, however, nothing like the danger from excess of milk proteids as from excess of proteids in flesh diet.

Milk as an adult food is deficient in ballast. It does not contain sufficient residue to excite the peristaltic action of the bowels; and is, consequently, when used alone, a constipating food. This is especially the case with boiled milk. Those who suffer from constipation should not allow milk to reach a temperature higher than the simmering point.

Milk is one of the cheapest sources of animal proteid. It is very much cheaper than flesh foods in this respect. It has also

the advantage over meat of containing quite a large percentage of carbohydrates and fats, and thus a quart of milk is equal to about one pound of beefsteak. The milk would cost sixpence, and the beefsteak tenpence or a shilling.

It is a great mistake to regard milk as a beverage. It is a food. The following is a summary on this point in a pamphlet on "The Use of Milk as a Food," issued by the United States Department of Agriculture:—

"The results indicate that milk should not be regarded as a luxury, but as an economical article of diet, which families of moderate income may freely purchase as a probable means of improving the character of the diet, and of cheapening the cost of the supply of animal foods."

Milk, we have seen, is deficient in carbohydrates; and, consequently, should be used with foods rich in this constituent, such as bread and the various cereal foods. There is no cheaper living than skim milk and bread. Hutchison gives the following table, which illustrates this point:—

"It will be observed that bread and milk furnished, at a cost of 2d., almost as many calories (*i.e.*, heat and energy) as were obtained from the restaurant lunch at four times that price."—*Food and the Principles of Dietetics*, page 128

Use in Disease

Milk, undoubtedly, is the best food we possess for the nourishment of the sick, especially when the sickness extends over a long period of time. In sickness there

is a deficiency of saliva; the ordinary foods cannot be reduced to a pulp in the mouth, and thus prepared for gastric digestion. Milk is very easily taken, and the amount of food thus given can be very accurately gauged. It is very easy to increase the amount of nourishment given to an invalid by adding to his diet a glass of milk with each meal.

It should be remembered, however, that milk taken in large quantities at a time may form large clots in the stomach. It sometimes forms into a solid clot like junket—made from milk by the addition of "rennet." It is better to take the milk in sips, or to dilute with equal parts of water. An adult

as that of the orange or grape diluted, can be given with great advantage in the intervals between the giving of the above foods. They quench the thirst, clean the mouth, and destroy the disease germs along the alimentary canal, and at the same time when absorbed into the blood they increase its alkalinity, and thus help in its circulation through the fine network of capillaries right through the system. Fruit juices can often be given even when diarrhoea is present. The writer has seen troublesome diarrhoea in fevers dispelled by the occasional use of fruit juice. A couple of days, however, will be sufficient to test the use of fruit and fruit juices in these cases.

LUNCH OF SKIM MILK AND BREAD

RESTAURANT LUNCH

Ingredients	Amount	Cost	Fuel value in calories	Ingredients	Amount	Cost	Fuel value in calories
Bread	10 ounces	1½d.	755	Soup	8 ounces		75
Skim milk	1 pint	½d.	170	Beef	2 "		275
				Potatoes	2 "		100
				Turnips	1 "		15
				Bread	4 "		300
				Butter	½ "		100
				Coffee			
				Milk	1 "		55
				Sugar	½ "		20
Totals		2d.	925	Totals		8d.	940

would require in health eight pints of milk to keep up the heat and energy of his body, but in sickness there is less muscular effort and less loss of heat; and, consequently, it is found that three or four pints are sufficient to maintain the weight and energy of the patient. Milk is the special food in typhoid and other fevers. It should be remembered, however, that milk is the best medium for the development of disease germs of almost every variety, and typhoid fever patients consequently require some other food as well. In typhoid fever the foods are given at frequent intervals, and consist of milk and water, oatmeal or bread jelly, groats, and foods of similar nature. Fruit juices, such

Milk is a good form in which to supply the nitrogenous element of food to rheumatic and gouty patients, as it does not easily split up into uric acid and allied waste products like ordinary animal foods. It should also be remembered that, though rich in proteid, milk is devoid of such stimulating substances as are found in meat. Milk, on account of containing a considerable quantity of water, and not easily being broken up into uric acid, is a good food in kidney disease, in heart disease with dropsy, and in inflammatory affections of the urinary passages.

Constipation

Undoubtedly milk and milk foods do not agree with all. Patients with dilated stom-

ache, and those who suffer from constipation, often develop a bad taste in the mouth, a coated tongue, drowsiness, and constipation. This, however, is much more likely to be the result when they are taken with other foods than the pure cereals. Milk does not combine well with either fruit, vegetables, or meat. If taken with bread, zwieback, granola, or other cereal food, and no other food be taken except, perhaps, a little bread and butter, it will frequently be found to agree. Neither sugar nor eggs should be added to milk when the digestion is sluggish.

A little salt is far preferable to sugar. Milk will agree with most people when absorbed in rice. In this way it is kept in a fine state of division, and there is no possibility of any clots forming. The addition of equal parts of water, or, better, barley water, will increase the digestibility of milk. When milk constipates, it should on no account be boiled. If it must be sterilised, that is, if one is not certain of the health of the cow or cows from which it is obtained, it should not be brought to the boiling point. A temperature of 170° F. for twenty minutes will destroy all disease germs, and this temperature will not interfere with either the taste or the digestibility of milk

Condensed Milks

Very often condensed milks are used in place of fresh cow's milk. The milk is condensed usually to about one-third its original volume, *i.e.*, twice its bulk of water would make it of similar composition to cow's milk. It must be remembered, however, that even when thus diluted, it is very inferior to the original milk. When diluted as directed, they are all poorer, very much so, in all the constituents of milk. The percentage of fats and proteids are especially low. And, again, quite a large percentage of cane sugar is added in order to preserve the milk, and it is on account of excess of this sugar that so much dilution is recommended. Many of the condensed milks are made from skim milk, and, consequently, contain a very

small amount of cream. Infants especially suffer from the poorness of condensed milks. Pearmain and Moor make the following comment on the nutritive value of condensed milk: "The following table shows the character of the liquid—it cannot be called milk—that is produced by following out the directions on the labels of half a dozen of the *best brands* of (sweetened) whole-cream milk:—

Sweetened whole milk	Dilution recommended for household purposes	Fat in such product	Dilution recommended for infant's use	Fat in such product
A	1 to 3	2.6	1 to 5	1.8
B	1 " 5	1.6	1 " 14	.7
C	1 " 5	1.6	1 " 14	.6
D	1 " 6	1.4	1 " 15	.7
E	1 " 5	2.1	1 " 14	.8
F	1 " 5	1.7	1 " 14	.7
G	1 " 5	1.7	1 " 14	.7
Human milk	—	—	—	3.5

One glance at this table shows how very deficient these products are in cream. Some of these milks, when diluted as recommended, only contain one-fifth of the fat required, and the best sample only contains one-half. Undoubtedly a great amount of harm is done by the continual use of such milks. On account of being weaker in every constituent, they sometimes prove more digestible than cow's milk, and may with advantage be used in sickness for a short time, but their continued use must result in ill health to the child. Children fed on these milks may look fat enough, but they are pale and flabby, and are often the subject of rickets. It is the excess of cane sugar that gives them the unhealthy fatness, but the children are hot-house plants, and readily succumb to disease. Children fed on tinned foods are often subject to a peculiar disease of the blood and bones resembling scurvy. In fresh milk there is an ill-defined antiscorbutic element which

prevents such results. The addition of a little fruit juice to the diet of children fed on tinned foods will, however, counteract the tendency to the above-mentioned disease. Tinned milks are not sterile, and the fluid formed by their dilution should be boiled the same as doubtful cow's milk.

The best tinned milks for infants are the unsweetened condensed whole milks, but they are difficult to obtain. As they contain no added sugar, they are liable to go bad, and, consequently, should be kept in a cool place. The small tins are preferable, as the contents can be used the same day on which they are opened. Fearmain and Moor give

the following analysis of four unsweetened condensed milks:—

Brand	Total Solids	Proteid	Fat	Milk Sugar
Ideal	38.0	8	12.4	16.0
First Swiss	36.7	9.7	10.5	14.2
Viking	34.2	9.0	10.0	13.3
Hollandia	43.0	11.3	9.0	18.5

All these brands have been condensed to one third the original volume, consequently the addition of two parts water will bring the strength up to ordinary cow's milk.

Taking It All Back

Darwinism and the Science of Eugenics

BY GEORGE MC CREADY PRICE

AND so Darwinism has received another severe setback. This time it is the new "science" of eugenics that has repudiated the part of Darwinism bearing especially on this work. In other words, the leaders of eugenics have at last become convinced that Galton's "law" is all a mistake, and have sorrowfully given it up in favour of the results of Mendelism. But I fancy that my terms may sound like Greek to some of my readers? and so shall undertake to explain myself.

The science of eugenics arose just a few years ago under the fostering care of Sir Francis Galton (then Francis Galton), who had become the most famous authority in the world on the subject of human heredity. Eugenics is primarily a movement for the accumulation of data regarding human heredity, the dissemination of the lessons to be drawn therefrom, with the idea of influencing public opinion (and possibly civil legislation) in adopting such rules and regulations regarding marriage as shall ultimately result in improving the human stock, the human breed. Perhaps it would be more accurate to say that it was adopted in

the first place with the idea of postponing or counteracting the wellknown tendency of modern civilisation towards degeneracy. Too many of the racially unfit tend to survive and propagate; and it was to counteract this widespread tendency that the movement known as eugenics was started. So far, so good.

But Sir Francis Galton worked under many disadvantages. In the first place, it will be remembered that he was himself a grandson of Erasmus Darwin, and thus a nephew of Charles Darwin, and accordingly was early schooled in all the intricacies of that doctrine which took the world so by storm a generation ago, and which modern science is now trying so hard to unlearn piece by piece. Thus Galton, several decades before he died, propounded his famous "law" of ancestral inheritance, which said that a child receives one quarter of his heredity from each of his parents, one-quarter of one-quarter or one sixteenth from each of his grandparents, and so on. This was very plainly in full accord with what we should expect from the theory of Darwinism, and together they seemed backed up by an array of scientific authority

that very few had the temerity to question *sotto voce*. Galton's method was almost wholly statistical; and this added another element of terror to his results, for who would dare to question the hard array of cold figures so laboriously gathered from all sides and classified and arranged with an industry that was simply amazing?

But in the meantime an Austrian, Gregor Mendel, born the same year as Galton, or in 1822, had been working away on the problem of heredity in a more truly scientific manner. He grew various kinds of flowers in his garden at Brunn, keeping a careful record of his results, and found that there are numerous distinct elements or "characters" that are separately passed on to the posterity. These separate elements we have since named "unit characters." Thus in the case of sweet peas, in crossing a tall and a dwarf, the result was always a definite number of tall and dwarfs, but none half-way between. In colour also it was the same thing; so that it was easy to predict just what the result would be of the blending of any given types.

Some quotations from recent scientific literature will bring out some more of these very interesting and important principles. Thus we have the following from Professor Thomas Hunt Morgan, of Columbia University:—

It is generally recognised to-day that the central idea of Mendel's discovery in regard to heredity is that when two contrasting elements enter a hybrid, one from each parent, they separate in the germ cells of the hybrid, so that the germ-cells are *pure* like those of the original parents in regard to each element.—*Popular Science Monthly*, January, 1914.

This idea of "germ-cells" may not be clear to some, and I may explain that the germ-cells is a theoretical part that is passed along from one generation to another but never lost, based on Weismann's theory of the continuity of germ-plasm. This much is theory; but the general results of Mendelism are beyond theory, they are demonstrated facts. They are no more to be questioned now than the formulas of chemistry or the mixing of

paints, and as we shall presently see, they remove forevermore one the main foundations of the theory of biological evolution.

I quote again from William A. Lucy's book, "Biology and Its Makers":—

The great discovery of Mendel may be called that of the purity of the germ-cells. By cross fertilisation of pure breeds of peas of different colours and shapes he obtained hybrids. The hybrid embodied the characteristics of the crossed peas; one of the characteristics appearing and the other held in abeyance—present within the organisation of the pea, but not visible. When peas of different colour were cross fertilised, one colour would be stronger apparently than the other, and would stand out in the hybrids. This was called the *dominant* colour. The other, which was held in abeyance was called *recessive*, for, though unseen, it was still present within the young seeds. That the recessive colour was not blotted out was clearly shown by raising a crop from the hybrid, a condition under which they would produce seeds like those of the two original forms, and equal in number; and therefore the descendants of these peas would *breed true*. The so-called purity of the germ-cells, then, may be expressed in this way: "The hybrid, whatever its own character, produces ripe germ-cells which produce only the pure character of one parent or of the other."—*Pages 315, 316.*

Putting with these facts that other far-reaching discovery of Weismann, that *acquired characters are not transmitted* to offspring, we readily see that there is not much left for Darwinism to work on, not much left of the theory of biological evolution. For how are new characters to be added to a stock that were never latent in the ancestry? True the stock might degenerate, and might thus transmit freaky characters like extra thumbs, and extra toes, or congenital cataract of the eye, as well as various skin affections and nervous diseases, which are now known to be transmitted as *dominants*, but none of these are in the direction of that higher development that the evolution theory requires. But Mendel's law, combined with that discovered by Weismann, must end the chapter on Darwinism for everyone not bound by mental inertia or

deceived by the loud protestations of so many leaders of modern thought who are so reluctant to surrender a theory that has already changed the whole current of modern thought into materialistic and anti-Christian channels.

The following from William Bateson, the highest modern authority on this subject, confirms my statement that Mendel's law blends with and confirms that of Weismann about acquired characters not being transmitted;—

The essence of the Mendelian principle is very easily expressed. It is, first, that in great measure the properties of organisms are due to the presence of distinct detachable elements [unit characters], separately transmitted in heredity; and secondly, that the parent cannot pass on to offspring an element, and consequently the corresponding property, which it does not itself possess.—*Sci. Amer. Sup., January 3, 1914; reprinted from the Lancet.*

Mendel's investigations were carried on in the sixties of the last century; but he dropped this work, and the world knew nothing of it until 1900, when DeVries and others simultaneously rediscovered these results with the very natural consequence that our whole conception of heredity in both plants and animals has been revolutionised. The battle is not quite over, for a few like Karl Pearson are still contending hysterically that this or that human character has not been proved to be "Mendelian;" but it is a losing battle, and there can be no question of the result. Five years ago Dr. C. W. Saleeby, the friend and scientific heir of Sir Francis Galton, and one of the leaders of the eugenic movement in England, reluctantly repudiated his master's "law" of ancestral inheritance, "which would be of such importance for eugenics [and Darwinism] if it were true, but which cannot stand in the light of our new genetic knowledge."

In a recent number of the *Forum* the latter writer has a very interesting article, which is also amusing in its frankness. In the following passage we can almost read

between the lines the extreme reluctance with which these discoveries of Mendel were received, and it throws some light on the conspiracy of evil that kept these discoveries covered up for over forty years. I do not mean that any scientific worker was guilty of thus deliberately joining a conspiracy of silence; but I do mean that in this instance, as in so many others, we can read the plain evidence of evil spirits doing their best to keep the light from shining on the pathway of mankind. I quote from the issue for April, 1914:—

The fact is that any practical science which depends, above all, upon heredity, must reconsider its statements and its intentions from first to last in the light of our new knowledge. To the breeder of wheat or roses or race-horses this statement applies, but it applies no less to those who seek to serve human parenthood and the future. The laws of heredity are not as Galton understood them, and they are not to be elucidated by the methods which he employed, and which Professor Karl Pearson has since elaborated and still employs. It was a tragedy for biology at large, and above all for eugenics, that Gregor Mendel should have been appointed abbot of Brunn, and should have lost all interest in his own researches, so that Darwin died without having heard his name, and Galton studied heredity for decades, without the key which Mendel had already forged, but of whose existence no one outside Brunn was aware.

That cannot be helped; but what can be helped is the tendency to continue along the old lines, and shut our eyes to the significance of the new methods—which are in fact older than Galton's, though our acquaintance with them is so recent. . . . Our business is to go forward, honouring Galton none the less in that we find ourselves compelled to abandon his generalisations, and to restate the postulates of eugenics in many respects. . . .

Statistical statements of averages and probabilities will not do. When Galton gave the Herbert Spencer Lecture at Oxford, he chose as its title, "Probability the Foundation of Eugenics." It will not do. The probabilities of the statistical method are untrue as biological facts, and they are useless for the service of eugenics.

Thus a saner, a more truly scientific study of this subject is fast getting back to the

principle so long ago laid down in the good old Book, that God ordained animals and plants to reproduce "after their kind;" and if Charles Darwin were living to-day he would be compelled to say, "I have laboured in vain, and spent my strength for naught;" though sad to say, these wretchedly unscientific falsehoods are already so widely

accepted, they have gained such an intellectual and social momentum, that it will be a long time before the great crowd who let other people do their thinking for them will wake up to this situation. We are reminded of the old proverb that a lie will travel round the world while truth is getting on its boots.

Corsets Old and New

JAMES FREDERICK ROGERS, M. D.

THE members of the medical profession and the lay teachers of health have decried the use of corsets from their very entry into the fashionable world. Yet if one looks into the pages of any medical journal of the last few years, he will see advertisements of these very same pieces of apparel, and will even read articles by physicians recommending their use as of benefit to the wearer.

Does this invasion or admission of the corsetier with his wares into the very inner sanctum of the medical world indicate that the profession has discovered that it has made a mistake all these years in preaching against stays, and been at last persuaded that it was in error in its notions, and that the women were right?—So it would seem. But there are corsets and corsets, and as a matter of fact the antagonism of the physician to the use of the ordinary corset is stronger to-day than ever before. The corsets advertised and prescribed by the physician for his patients, are of special design, and are often for the purpose of helping to repair the damage done by the previous use of the ordinary corset. Corsets have been used by Dame Fashion for more than one end, but it remained for the physician to invent one to remedy the disastrous results produced by those of Dame Fashion's contriving. It was a case of fire fight fire, in which the physician had no choice of weapons.

The use of the corset has at least antiquity in its favour, for it dates from very early times. Strange to say, a corset of some sort

was a part of the apparel of the early Grecian ladies, and, if we can trust their portraits, they drew its lacings as tightly as any woman of more modern times ever dared.

The fair damsels of the Middle Ages wore stays, and the good and courteous knight accepted the lady of the waspish waist without remonstrance—possibly because there was no other kind to accept.

The fashion seemed to appeal to the poets, or at least they found their bread buttered by tuning their harps to the mode. Dunbar, referring to a company of damsels, sighs, "Their middles were as small as wands." Even those of humbler origin must have adopted the fashion; for we read in Chaucer of how the waist of the carpenter's wife was as "gentyll and small as a weasel."

There were prosy folk, however, who were not pleased with these "whalebone prisons." Bulwer, writing in 1653, speaks of "another foolish affectation there is in young virgins, though grown big enough to be wiser; but they are led blindfold by a custom to a fashion pernicious beyond imagination, who, thinking a slender waist a great beauty, strive all they can by straitlacing themselves to attain unto a wandlike smallness of waist, never thinking themselves fine enough till they can span the waist. By which deadly artifice, while they ignorantly effect an august or narrow breast, and to that end by strong compulsion shut up their waists in a whalebone prison, they open a door to consumption."

A writer of 1731 makes this ambiguous remark: "Even this female armour is changing mode continually and favours or distresses the enemy continually according to the humour of the wearer."

As the last-quoted critic remarks, the corset has changed greatly in some respects from age to age. For a time it was used to accentuate the bust, and at another to minimize this feature. It has usually compressed the waist, though the degree of constriction has varied greatly. Just at present it has travelled low down and exerts its pressure over the hips and lower abdomen, the least harmful position in which such constriction could possibly be used. Unfortunately, judging from past vagaries of fashion, the corset which allows an ample waist will not long remain in style, and even at present it is not generally adopted.

The body has a wonderful way of accommodating itself to circumstances, even adverse circumstances; and for this reason tight lacing of the waist has not produced the disastrous effects which would naturally be expected from so abnormal a condition. This does not mean, however, that the effects are not bad. Because the person does not die an early death is no sign that a deformity is not a bad thing, or that she might not have lived longer and have been in better health.

Ordinary corsets produce deformity, there is no question about that, and in fact this is what the tight lacer is aiming at. But the deformity of the lines of the body is accompanied by internal deformity of a more serious nature. In order to carry on the functions of the body we must have a certain amount of liver substance, a certain capacity of stomach and of intestine. The pressure of the corset comes especially on the liver, the stomach, and the intestines. These cannot shrink in size without diminishing the total activity of the body; so the next best thing is for them to shift their position and find room elsewhere. Usually the only room

possible is lower down in the abdomen, and they make the best of a bad matter by moving into this region.

Those who have examined the bodies of tight-lacing women at autopsy have long noted deformities of the liver brought about from this cause, but only recently have the more disastrous effects upon the stomach and intestines been discovered. These organs are held in place normally by strong fibrous bands; but by the continual pressure of the waist constriction these bands become stretched, and the organs slowly descend toward the pelvis. They are forced out of shape and have their openings misplaced, and in their new positions they cannot, for mechanical reasons alone, do their work so well as they did before, while the effect on the nervous system of their dragging downward from their relaxed bands is also disastrous. With the deformity of the constricted waist always goes the second and compensatory deformity of an enlarged and protruding abdomen, because these organs have been pushed downward to a new location. The deformity is added to by the fact that on account of the pressure upon the waist, the fat that would have naturally accumulated at the waist line is deposited farther down, in abdomen, and especially about the hips.

One other bad effect of the corset is that it takes the place of the muscles of the back and abdomen which form the natural support and these become weak and flabby, allowing more abdominal deformity and more displaced accumulation of fat, and fail to sustain the abdominal contents.

The best cure for the bad effects of the corset is prevention. In fact, this is the only cure for drooping organs and abnormal deposits of fat. However, the damage being done, as a means of reducing the deformity and of lifting and holding the displaced organs more nearly in their normal position, physicians have recently invented the use of the elastic abdominal belt, or of corsets so shaped that they afford strong pressure no

the lower part of the abdomen and little at the waist line. The corset itself holds up the falling organs, thus relieving to some extent the digestive troubles and the abnormal fatigue and other symptoms from which these patients suffer.

Once in a while an individual is born without the proper suspending ligaments for the abdominal organs. For these an artificial support of this kind is about the only help, save that of strengthening the abdominal muscles. These cases are rare, so that the use of the corset as an abdominal support is often the result of the previous use of the ordinary corset.

For the normal person there is no good use for corset. The clothes can as well be hung from the shoulders, as they were before corsets were invented. Young women would better be dressed as are the children of Sir Frederick Treves, so that they can at any time kick as high as their heads, if they like.

If the corset is worn at all, it should be made to come down over the hips, and its constricting effect should begin far down, at the pelvis and the very lowest part of the abdomen, and decrease from there to the waist line. Nature's corset of strong elastic muscles is the best in every respect, not only for health, but for the production of good looks.

PERVERTED TASTES.

ONE of the most impressive instances of a dietary tragedy is recorded in the Book of Numbers. "The children of Israel wept, and said, We remember the . . . leeks and the onions, and the garlic, but now . . . there is nothing at all, besides the manna, before our eyes." The onions actually destroyed their appetite for angels' food. That is the most mournful aspect of our modern and insatiable appetite for piquancy. If we absorb ourselves in the sensational, and the hair raising and the bloodcurdling, we shall find ourselves losing appreciation for the finer and gentler things in life, we shall glory

no longer in the sweetness of the morning air, in the glitter of the dew-drenched grass, in the fern draped hills and the twinkling stars. Jenny Lind, when asked why she renounced the stage, pointed her questioner to the setting sun. "I found," she said, "that I was losing my taste for that, and," holding up her Bible, "my taste for this; so I gave it up."—*Selected.*

ALL WELL EXCEPT "COLDS."

"How are all the family?" questioned a tall, dignified man of a bright little woman, an old acquaintance whom he met on the street.

"All well except colds," replied the little woman, "and colds don't count. They have them all the time."

She spoke of a "cold all the time," as a matter of course, something not possible to be avoided. But such an attitude of mind, while very common, is all wrong. A cold that hangs on is a serious matter.

Both overeating and eating too much sugar and starches are habits tending to colds. A great many little children are constantly having colds in their noses; this is oftentimes not because they don't get enough to eat; but because they eat things not fit for children to eat.

Sore throats should be treated until they are cured. Adenoids and inflamed tonsils are a fruitful soil for the catarrh germs; in children especially they ought to be removed.

A child that has a cold all the time has something wrong.—*The Healthy Home.*

AN inch of rainfall is equivalent to 603 barrels of forty-five gallons each to the acre. This amount of water weighs over 113 tons. Think of hauling it to the farms in waggons holding a ton each! That seemingly light air and clouds are capable of handling this enormous amount of water is one of the marvels of meteorology. One inch of rain is not such a heavy rainfall either.



Editorial



The Pure Milk Problem in India

IN the face of such conditions existing in the milk supply as we have already outlined in a previous article, it is by no means an easy task to offer suggestions for their improvement. As a beginning, it is safe to conjecture that any one plan outlined for the improvement in the present wretched condition of our milk supply, will not be without defects, but once having in mind what the present conditions are, and realizing what they should be, some solution for reaching the objective must certainly present itself.

That apparently inherent characteristic that "anything that was good enough for my father is good enough for me," is sure to make itself felt in dealing with the problem, as it does in all reforms sanitary or otherwise. Here again education is a principle factor in bettering conditions. Once the customer realizes that four or five annas for a pure, clean milk is better than three annas for a dirty, filthy article which is half milk and half water, the sooner will he assist the sanitary authorities in raising the standard of milk production.

As far as the writer knows, the first demand for pure, clean milk resulted in the founding of the "Walker Jordan" milk laboratories, which are located in the New England States of America. The stables are located some miles outside of the city of Boston. Milk depots are located at various points in the city itself, in fact, in all of the important cities about, as the "Walker Jordan" milk can be purchased throughout the radius of a thousand miles. The depots in the various cities are used as local distributing centres from which one is always sure of the genuineness of the article pur-

chased. The name "Walker-Jordan" on a milk bottle is as significant as the "Hall" mark on gold and silver articles.

The demand for a clean milk became so great that in order for other milk firms to compete, many similiar laboratories sprang up in the principle cities of America. Although the dairies are of private ownership, the health authorities of the cities kept close supervision over the milk supply. To those dairies which keep up the standard of their milk to meet the requirements of the health authorities of the municipality, licenses are granted and renewed periodically. The stables are inspected, the care of the milking utensils and the feeding of the cows are investigated. At any time unbeknown to any official of the milk depot, samples of milk are selected from the various depots, taken to the laboratory of the departments of health, and examined for protein, fat, sugar, and bacterial content. In the renewal of a license all of these things are taken into consideration. For a milk dealer to lose his license means the destruction of his business. The license once granted is a bona fide guarantee to the customer that he is getting the genuine article.

Let us take a peep inside the stables of one of these dairies. We have had handed down to us for generations, reminiscences of the cleanliness of grannie's kitchen. Grannie's kitchen compared with the stables of one of these dairies would be considered a dirty place. The stable is not just ordinarily clean, but it is surgically clean. The udder of the cow is not merely wiped off, but it is sterilized; the hands of the milker instead of being put through soap and water are sterilized; and the milker's gown, the

milking utensils, and bottles are not merely washed out, but sterilized. Everything is conducted with the same care that is exercised before the surgeon attempts to do an operation. The care of the stables, the feeding and the grooming of the cows, receive the same careful attention. A milk gathered in this way is a bacteria free milk; brings a good price; and after being bottled, will keep for weeks. This milk is used mostly for infant feeding, and is put up varying in the proportions of protein, fat, and sugar to meet the stages of development of the infant. It is really a prescription milk, as the laboratories receive orders something like this: A 1 2 3- mixture, or A 3 2½ 5 mixture, the figures indicating the percentages of protein, fat, and sugar desired for easy digestion by particular infants. Also whey, cream and buttermilk mixtures are made for infant feeding. All of the milk put out by these dairies is not of this grade. The milk for ordinary consumption is handled with the same care with the exception of maintaining everything surgically clean. This produces a milk which allows of a certain bacterial count as a standard which is set by the municipal health boards.

The nearest to this that the writer has seen in India is the military dairy located at Bangalore. Although it is quite possible that the military have as good in other stations, yet the thoroughness and care that is exercised in the handling of the milk at this place is certainly commendable. The dairy is located quite a distance outside the city. The man in charge was very much interested in his work, which fact was attested by the appearance of the place. The herd consisted of both buffaloes and cows. Each animal had a name. The quantity of milk and the amount of food handled in connection with each animal was carefully recorded.

All of the assistant help was Indian and the cleanliness exercised in the care of the herd, the milking, and the after-care of the milk in a country where filth and squalor is

the rule rather than the exception, offered quite a study in contrast.

The dairy was equipped with every necessary piece of machinery for the most rapid transit of the milk from the cow to the bottle or into butter. Separators, pasteurizers, sterilizers, coolers, in fact nothing seemed to be lacking. It was an institution of which the most progressive country in sanitary reform could be proud. Every bottle of this milk left at the door was a credit to the institution that produced it.

This is the kind of milk that ought to be accessible to the civil population of India, and until the civil population can have access to such a milk the appalling infant mortality existent in India can never be checked. Any babe whose future destiny is dependent upon artificial feeding in the form of the cow's milk such as one ordinarily obtains in India, has its coffin lid sealed even before it is born.

Just how the municipalities will get under this problem of a pure milk supply is a question the Health Board authorities will have to work out. Each municipality will have to work it out in accordance with the conditions confronting it. Some will do it one way; others will accomplish it another. The first thing to be accomplished, however, is to get all sources of milk supply outside the city. The populace may rise up against any such radical change, but to yield to this would be acquiescing to a spirit already extant in India, and which is holding the nation back. The fact still stares us in the face that the milk supply in India is filthily dirty, and the sooner steps are taken to better these conditions, the sooner will India take her place by the side of the nations, that are advancing along the lines of sanitary reform.

He who is less fortunate in not being included in an organization whose duty it is to work out a pure milk supply must fortify himself against unclean milk. We refer especially to the one who lives in the outlying districts in places too small to have a health department. Under these circumstances

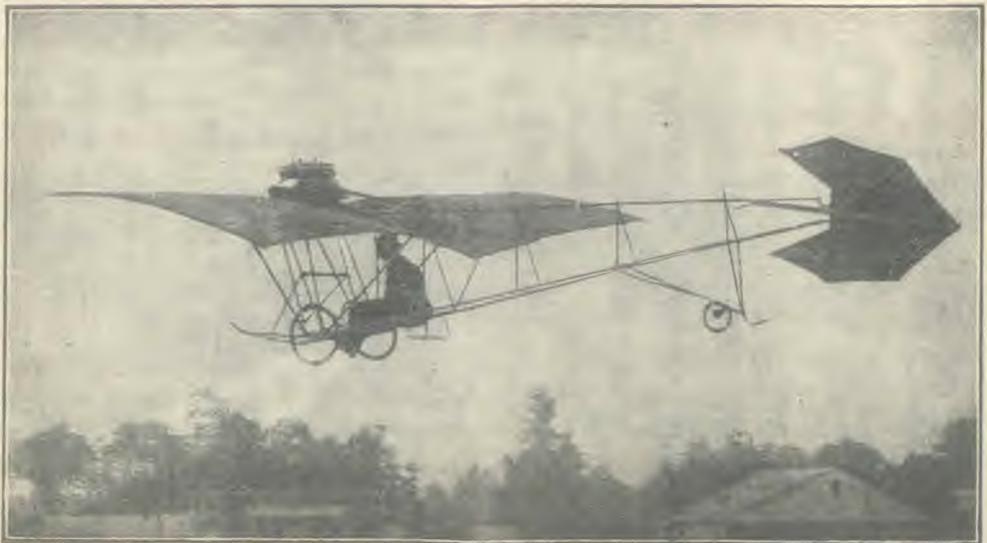
one solution to the problem is for one to keep his own cow. Food and the care of the cow will cost about the same as seven or eight seers to the rupee. At the rate of five seers to the rupee it would be cheaper to keep one's own cow, providing the demand for dairy products in the family is sufficient to use up the output from a cow, or that which is not used by the family can be sold to others. In any event, should the milk from one's own cow cost the same or even a little more than from the "dudhwala," the superior article is worth the difference.

Any one to whom it is not practical to keep a cow must acquaint himself with what constitutes a good milk, and the various dodges used by the dudhwala to deceive his customers. The cream content can be measured by placing a sample of milk in half-inch glass tubing, allowing it to set, when from time to time any difference can be noted. Milk that has been diluted with water, will boil indefinitely without boiling over, and is harder to scorch. It looks very blue instead of white, after removing the cream. When dropped upon a dark, smooth surface it shows less colour. On separating the whey from the curd, there is less curd in proportion to the dilution of the milk with water. While good milk varies in colour,

yet it will seldom cut up the capers that milk does when the dudhwala is colouring his milk. Buffalo's milk, coloured and diluted with water to resemble cow's milk, or the mixture of cow's milk and buffalo's milk can be detected by the consistency of the curd. The buffalo's milk gives a denser, tougher curd. Milk into which has been placed a preservative will go bad and become unfit for consumption before souring and coagulating. If any of these peculiarities in the milk supply are noted, cut the pice of your dudhwala until he gives you a good milk that will answer to all of the tests that you have at your command. The dudhwala is like all Indian servants, cut off a finger, yes, a hand if you like, but don't touch his stomach.

In conclusion, a pure milk supply should aim at the following points :—

1. Bacteria should be limited to a standard set by municipal boards of health.
2. Its food value should meet a certain percentage of fats, carbohydrates and proteins.
3. It should be free from dirt and bad odours.
4. It should not contain any disease germs.
5. In bringing about these standards, the price should be kept within the means of the consumer.



: Mother and Child :

The Child's Clothes

LAURETTA KRESS, M. D.

A VERY important part of the mother's duty is to clothe her children so as to keep their bodies in health. This responsibility begins at the time the child is born, and increases as the days go on. Much error is taught about the clothing of children; and as a result, sickness and disease are increasing with remarkable rapidity, because of failure to understand the organisation of the body.

Garments Should be Fitting

Mothers who are careful to have their own garments hygienic, are careless regarding their children. They place upon them ready-made clothing, bought at a "very reasonable price" in the shops. These have been made in large lots, without any consideration as to the form of the specific body to wear them, and do not fit. They are tight in the arm-holes, often measuring the same in the front and the back, leaving no room for expansion as the child stands erect and takes a deep inspiration. All these particulars are very essential to the development of a healthy child.

There must be an abundance of room in the chest as well as about the waist.

The proper way for each mother to do in making garments for her child is to allow sufficient cloth in seams and about the chest and the waist, so that they can be made larger as the child grows. Frequent measurements of the chest and the waist should be taken, in order that the mother can be sure the clothing is not binding, or hindering the growth of the body, or displacing any organs.

All Parts Proportionately Clothed

Great care should also be taken to have all parts of the body clothed proportionately. The arms should not be left with a thin covering over them, while the trunk of the

body has many thicknesses. The legs and the knees need, correspondingly, as much clothing as the thighs and the trunk. If these are not properly clothed, the blood on its way to the extremities and to the skin is chilled by contact with the air from both the morning and the evening breeze, and is driven internally, congesting the digestive organs, also the lungs, and other organs contained in the body.

The knees and the legs, being bare, cause a great deal of disturbance with the throat and the nose. Physicians who are studying into these things have noticed for a number of years that there has been an increase in disease where the arms and the legs of children have not been suitably clothed, and many deaths occur that might not have been, had some heed been given to this great essential by the mothers.

In the autumn and the winter, the limbs require to be clothed with flannel or wool. Long combination undersuits coming to the ankles and the wrists, with woollen stockings coming over the knees, will keep the hands and the feet warm, and increase the assimilation of food very remarkably. If children have cold hands and feet, some disturbance of the digestion will surely follow. For colder weather it is quite necessary that the legs and the arms should be well protected.

Careless Clothing and Illness

For out-of-door wear there is need of extra clothing for the limbs as well as for the trunk. Many a serious illness has resulted from lack of care in this respect. Whatever degree of warmth is required for comfort for any portion of the body, is necessary for other

parts as well. Therefore a child's out-of-door outfit should be such as will secure an equal additional increase of warmth to the entire body proportionate to the severity of the weather.

Many other points in addition to that of healthfulness require consideration in the question of clothing for children. No child ought unnecessarily to be required to wear unbecoming garments. Many a little one has been made self-conscious and unhappy by being obliged to wear some article of clothing so out of harmony with beauty or good taste as to make the wearer a target for comment and even ridicule.

Graceful and Artistic

Healthful garments are not, as many seem to imagine, of necessity so peculiar in design as to be ungraceful or inartistic. God has clothed the flowers of the field in beauty and loveliness, and it was certainly not intended that human flowers should be clad in ugliness. Not all the vagaries of fashion should be followed; but when purchasing or making children's clothing, the mother may aim to choose that which is adopted to the peculiarities of the intended wearer, and so to combine harmony in colour and simplicity in style as to make an unobtrusive garment answer every hygienic requirement and also satisfy the innate love of the beautiful.

To dress a child simply is always in good taste; and while all the clothing should be made neatly and well, for ordinary wear it should not be of such delicate material as to subject the little wearer to the slavery of constant care lest he spoil his clothes. Not only does such a bondage of thought and care concerning dress mar the happiness and curtail the freedom of the child's activity, but it so emphasises the subject to his mind as to foster vanity and a love of dress.

Children's attention should be called as little as possible to dress as an adornment. Teach them early in life that it is the clean, smiling face, ruddy cheeks, and upright, healthy frame that should be the chief attrac-

tion; that dress is simply the setting for the jewel; and that while it should always be whole and tidy, it should not be the thing in itself to attract admiration. Teach the principle that it is the sound body, the perfect poise, the near approach to God's ideal, that gives the charm, and not the furbelows of a fashionable attire.

BOTTLE-FED BABIES

OCCASIONALLY it seems impracticable to nurse a baby. In such a case if the artificial feeding has not been well planned, the indigestion and consequent distress may make baby an almost intolerable burden to mother or nurse.

The most frequent errors in artificial feeding aside from the use of unclean or unwholesome milk, are the use of too much fat and the premature use of cereal food. The belief, once prevalent, that the casein or curd is the most indigestible part of the milk seems to be erroneous, although there are occasional instances where casein seems to be the disturbing element. The most frequent cause of distress is an excess of fat in the food. When this is the trouble, it is best to use whey without any cream for twenty four hours, then 1 per cent fat the second day, 1 1/2 per cent the third day, and 2 per cent the fourth day. For most infants having uncomfortable digestion, 2 per cent of cream is about the limit of tolerance, though there may be cases where it can be increased to 3 per cent and 3 1/2 per cent.

To obtain a certain percentage of cream, ordinary four-per-cent dairy milk is put into a quart bottle and the cream allowed to rise. The first six ounces removed with a Chapin dipper will contain 16 per cent of fat. One ounce of this added to 15 ounce of whey will make a 1-per-cent-fat mixture; 2 ounces added to 14 ounces of whey will make a 2-per-cent-fat mixture, etc.

Another cause for distress at this age is excess of starch through the use of a cereal, or of sugar through the use of sweetened condensed milk. Either of these errors will

lead to a moderate degree of chronic distress, often accompanied by vomiting of sour watery material, from one to two and one-half hours after a meal. There may also be fermentative stools, with rawness of the buttocks and of the lower end of the intestinal canal; or there may be sufficient irritation of the canal to cause distress without appreciable change in the skin of the buttocks.

When the bottle-fed child is a little older, there may be extreme constipation, the fecal masses being very white, or putty-like, or "marble-like," as described by one mother. When there is a large quantity of fat in the food, as when very rich milk is used, these fecal masses are greasy and crumbly, and have the foul odour of fatty acid.

Children having this form of constipation are restless, cry easily, and sleep poorly. Not infrequently a victim of this trouble will sleep on his knees, with his nose buried in the pillow. Such children are receiving more fat than they can digest properly. The proper treatment is to reduce the amount of fat in the food and substitute carbohydrate, particularly in the form of dextrin, if the child is under ten months old.

After the child is ten months old, it is probably best to use cereal gruels, with eggs, fruit pulps, etc., to replace part of the milk. At no age does a child need more than a quart of milk daily; and from the tenth month it should not have more than five meals during the twenty-four hours. When the child requires more nourishment than is supplied by a quart of milk a day, it is high time that it receive part of its nourishment in the form of cereals, zwieback, eggs, etc.

Slight degrees of rickets, with malnutrition, are not at all uncommon with babies of eight months or over. Babies that cry because of bone and muscle tenderness may be suffering from this cause; or more rarely there may be tenderness due to the presence of scurvy. Either of these conditions is an indication of some fault or lack in baby's food.

A very large number of infants under two years are troubled more or less with starch indigestion, accompanying diarrhoea, or possibly constipation and a bloated abdomen. With this condition there may be an acid state of the system, manifested by restlessness, irritability, broken sleep, loss in weight, or failure to gain weight, and a condition in general that causes the parents much uneasiness.

Such children suffer from pain about the navel, and are among the most uncomfortable the doctor is called upon to treat; and they make everybody else in the family equally uncomfortable. Surprising as it may seem, there is no class of infants so easy to treat.

Often these children are supposed to be "delicate;" and they are supposed to have appetites so frail that they must be fed whenever they desire to eat. The consequence is that these victims of mistaken kindness are all the time nibbling at some food, and they never experience real hunger, thus missing one important aid to good digestion.

The remedy is restriction to three meals a day with no "piecing" between meals, and the limitation of starch. Whatever starch is given should be in a very digestible form, perhaps partly dextrinized, like zwieback. It may also be an advantage to give a little diastase to help digest the starch. If this regime is carefully followed, these little ones will soon be rugged and rosy, and they will let the old folks have a little peace.

IT was said of Lord Lister that by his antiseptic surgery he saved more lives in one year than Napoleon destroyed in all his wars. The same can be said of Mr. Marconi. But for the wireless telegraphy there might have been none saved from the awful disaster of the *Titanic*. Yet Marconi remains plain "Mr." If he had slain in war as many as he has saved, he would be an Earl at least, with a £50,000 gift and a vote of thanks from Parliament.



Breakfast Dishes

GEORGE E. CORNFORTH

A GOOD start is half the race, but probably few persons realize how much the success of a day may depend upon a good breakfast, and scarcely a wife or mother realizes that she may contribute to the success or failure of the members of her family by the breakfast she prepares. But the articles commonly used for breakfast are the hardest of all foods to digest—ham and eggs, liver, and bacon, fried eggs, salt fish, fried potatoes, doughnuts and coffee; and these dishes are far from being ideal breakfast dishes. The digestion of such foods robs the eater of some of the vigour which he needs for the work of the day. In the morning soon after rising, when one's vital powers have not yet been aroused, the stomach is least equal to the digestion of such foods, and instead of them the breakfast should consist of easily digested food, but it should be nutritious and capable of sustaining labour. The mistake is often made of gauging the sustaining power of a food by the length of time it requires for digestion, and one which "stands by" is supposed to furnish more nutrition than one which is digested more quickly. But the very fact that a food is difficult of digestion may be reason why the body cannot get as much nourishment and sustaining power from it. The breakfast should consist of wholesome foods which will nourish the body with small tax upon the vital powers.

Fruits stand at the head of desirable foods for breakfast. They are cleansing, refreshing and easily digested.

Next to fruits may stand cereals, which,

when properly prepared and properly eaten, are easily digested and nutritious. If used in the form of porridge, cereals should be thoroughly cooked; fifteen or twenty minutes is not long enough to cook cereals. They should be cooked in a double boiler, and no cereal should be cooked less than one hour. Rolled oats, rolled wheat, cracked wheat, whole wheat, pearl barley, and hominy should be cooked from four to six hours; possibly whole wheat and coarse hominy may require more than six hours' cooking. These cereals may be cooked the afternoon before and reheated in the morning, or they may be cooked over night in a fireless cooker. Then, after they have been properly cooked cereals must be properly eaten if they are to digest well. This means that they should be well chewed. To overcome the difficulty of chewing porridge, some hard food, such as zwieback, crackers, beaten biscuit, or nuts may be eaten with it. Cereals should be served with cream only. No sugar is needed on them any more than it is needed on potato or in bread and milk. Much of the digestive trouble which porridges have been supposed to cause has probably been due to the sugar used with them. The fact that they compel more thorough mastication makes zwieback, crackers and unfermented rolls and sticks better breakfast foods than porridges.

Eggs are quite generally used for breakfast, and they make a very good breakfast dish when properly cooked. They should neither be boiled nor fried, but may be jellied, dropped, scrambled, steamed, shirred (soft), or made into omelet.

Hot or cold milk and buttermilk are also good for breakfast.

Potatoes for breakfast are best baked, but there are many wholesome ways of warming up potatoes. The frying pan ought to be banished from our homes. In many homes the breakfast is almost entirely prepared in the frying pan because in that way food can be quickly made hot, and it is to be feared that many who get such breakfasts would not know how to get a breakfast without its use. But such ignorance or such methods of saving time are very costly when the health is considered.

Hot soda or baking powder biscuit are a very common but improper breakfast dish. Besides containing chemicals, they are often insufficiently baked, and, being eaten hot, readily form a sticky ball in the mouth, which is swallowed with scarcely any mastication. Instead of these we recommend zwieback, beaten biscuit, unfermented rolls or puffs.

Toasts of various kinds are excellent breakfast dishes, but we cannot recommend the hot buttered toast which is so universally enjoyed. When a slice of bread is quickly browned, or perhaps scorched, on each side, the centre of the slice is warmed enough so that it resembles a slice of fresh bread, which no one would recommend as being wholesome. Then, when butter is melted into this slice of hot toast, the butter greases it, so further to interfere with its digestion. Instead of such toast we suggest the use of zwieback as a foundation for a variety of wholesome and palatable breakfast toasts. The thorough toasting of the zwieback, slightly browning it throughout the slice, so changes the nature of the starch that, though the slice may be moistened or soaked in liquid, it never becomes sticky or soggy as does the quickly prepared slice of toast when wet.

The zwieback may be reheated in the oven and served hot and dry. It has a delicious nutty taste, and compels mastication, which aids in the digestion of the other

food eaten. Hot cream may be poured over the zwieback to make cream toast.

Cream gravy or milk gravy may be poured over the zwieback after moistening it in hot water, to make gravy toast. Nut gravy or tomato gravy may be used.

For egg on toast, moisten the zwieback in hot cream or hot water, and place a nicely poached egg on it.

For asparagus on toast, moisten the zwieback in the water in which the asparagus was cooked. Lay the asparagus on the toast and pour cream sauce over the tips.

Fruit toasts are nice prepared from the sweeter kinds of fruit, such as blueberries and other berries, pears, apples, peaches, grapes, prunes, figs, dates. The more acid fruits do not make such palatable toasts. To prepare fruit toasts the zwieback should be moistened in hot cream or hot water, and the hot fruit sauce poured over it. To prepare the fruit sauce rub the stewed fruit through a colander, which, in the case of raspberries, blackberries, and grapes, should be fine enough to remove the seeds. Sweeten the pulp to taste, heat it to boiling, and if it is berries or grapes, add to it sufficient cornflour which has been stirred smooth with a little cold water, to thicken it slightly. Stewed cherries may simply be stoned and heated and thickened. Chopped nuts may be sprinkled over any of the toasts, then there will be in this one dish the ideal combination of fruits, grains and nuts.

Fresh strawberry toast may be made by placing crushed and sweetened fresh strawberries on top of slices of zwieback moistened in hot cream, and putting whipped cream on top of the strawberries. Fresh raspberries, peaches, or mashed banana may be used in the same way.

In moistening the zwieback for any kind of toast, care should be taken not to get it too soft. It should retain some of its hardness so there will be something to chew.

For prune toast, hot prune marmalade is used; for fig toast, hot fig marmalade, and

for date toast, hot date marmalade. The stiffly beaten white of an egg may be beaten into prune marmalade to make prune whip toast. Fig toast and date toast are nice with coconut sauce poured over them. Following is a recipe for the—

Coconut Sauce

1 cup milk
1 level tablespoon sugar
 $\frac{1}{4}$ cup shredded coconut

1 level tablespoon cornflour
A few grains salt

Heat the milk and coconut together in a double boiler for one-half hour. Strain out the coconut, pressing it well to get all the milk out of it. Put the milk back into the double boiler, add the sugar to it, heat to boiling, and add to it the cornflour, which has been stirred smooth with a little cold milk. Allow it to cook five minutes. Add the salt.

Temperance

Insanity As Related to Drunkenness

The Vices and Not the Worries of Civilization—The Grave of Hope, Purity, and Happiness

THE sixty-sixth annual report of the government lunacy commissioners, when submitted to the British Parliament, evoked a great deal of comment. This report, showing the number of insane persons in England and Wales for the last reported year, and for a number of other years, taking them at regular ten-years intervals, is of special interest to the student of sociology. Notice:

Year	No. of Insane	Rates per 10,000 Pop.
1852	21,158	11.6
1862	41,129	20.2
1872	58,640	25.4
1882	75,072	29.0
1892	87,848	29.8
1902	110,713	33.5
1912	135,661	37.1

The commissioners, in their report, stated that the three great causes of lunacy were hereditary influences, previous attacks, and intemperance. The first two are predisposing causes, and the third is an exciting cause.

The Vices and not the Worries

With these theories the late L. S. Forbes Winslow, M. B., M. R. C. P., LL. D., D. C. L., a specialist upon mental diseases, whose writings, dealing with the relationship between drink and mental defectiveness, have won for him high distinction, takes issue. He says:

"I have no patience with those who ascribe this terrible condition of affairs to increased competition, and the wear and tear of modern life. . . . No. It is mere shelving of re-

sponsibility, and the true causes of insanity are the vice, not the worries of civilization. I should put the causes of insanity in the following order: (1) drink; (2) cigarette smoking; (3) heredity. And until the drink question has been settled or properly dealt with, and marriage laws revised, the nation will continue to go from bad to worse."

The statement that the "true causes of insanity are the vices, not the worries, of civilization," is not overdrawn.

The Grave of Hope and Happiness

Read the following description of another by-product of the liquor and tobacco traffic as given by John J. Eden, in the *War Cry*.

"The public house is the grave of hope purity, life, and happiness. The large takings are indeed the price of blood and innocence. Here there is no old-time comradeship; but you will meet all that quintessence of greed, cruelty, and right down wickedness represented in the racing man, the card sharper, the streetwalker, the wife beater, and the white slave agent. The filthy floor reeks with germs of consumption and foul diseases, whilst the air is poisoned by tobacco fumes and deadly gases from ill-used stomachs. Everything seen, heard, smelled, or tasted is revolting. . . . Through side doors issue sisters of the night, women young and old, pretty and plain, Once some of them were scholars in Sabbath-schools, and loved the Lord. Now their thoughts dwell on beer, and the means of securing a constant supply.

"The public house is the cemetery within whose unhalloved walls lies buried the virtue and beauty and love of hordes who were once ministering angels. Here the flower of manhood, the blossom of womanhood, wither ere the rising sun can ripen the fruit. Visit the hovels where exist life's derelicts—miserable dens, where the tract is unread and the preacher unheard, where conscience lies drowned under seas of beer. . . . In every churchyard, the unknown grave bears witness to the finished product of drink."

What a dreadful picture! From the hour when the daughters of Lot made the world blush because of their disgraceful conduct in a cave in the mountains of Zoar, until the present day, there has been one continuous, unrelenting, despairing cry of distress. The record says, "They made their father drink wine that night." What heartbreaking anguish the Israelites endured for generations because of that one transgression! The Ammonites and Moabites, warlike, revengeful, idolatrous, and determined, were ever the foes of God's chosen people. In manner, in dress, and in morals, the true Israel have ever been different from the idolaters about them.

Demoralizing Attire

What wonder is it that the human family are steeped in sin, when many of the patterns of

female attire are cut in the workshop of hell. Can it be expected that young men and young women who have no hold on God, will retain their purity when compelled to witness such sights as are daily seen on the streets of our larger cities? Is it strange that groups of men stand on the street corners and stare in astonishment at the living creatures adorned in fashionable garments who chance to be passing? What do they see?—Presumably, a product of the Garden of Eden, a daughter of Eve. But where is the likeness? The trouser-like cut of the garment indicates masculinity. The hanging folds of cloth indicate femininity.

What shall we say concerning this semi-femininity-masculinity type of adornment? Is it not a disgrace to modern civilization? The fact that thousands of wives and daughters whose characters are unquestioned, adorn themselves thus, does not lessen the demoralizing effect. Upon observing the results produced by these fashions, one is led to ask himself whether they are the "finished product" of the Garden of Eden, or of the cave in the mountains of Zoar.

Merciful God, preserve the youth of Christian parents everywhere from the enticing, deceptive allurements of this untoward generation.



HEALTH BY EXERCISE

IN adopting rules for preserving your health, you should remember that no matter how good a thing may be, it is quite possible to have too much of it. The rule holds good of almost everything except fresh air; it is hard indeed to get too much of that, although perhaps you will do well not to live where high winds prevail.

But the case of muscular exercise is different. Although some kind of exercise is necessary to health, it is impossible to lay down general laws in regard to it; the form must be modified for each individual. Age, sex, strength, appetite, digestion, mode of life, and a dozen other considerations, all enter into the question. The amount of exercise required to keep one

person in good condition would quickly exhaust, and might possibly kill another.

Most persons who wish to be strong and well, and who have no desire to compete in athletics, should aim at the general well-being of the whole system rather than at developing muscle. That is especially important for those who have passed the age for athletic sports and whose work does not demand unusual muscular power. As a general rule, it is better to exercise outdoors than indoors.

Young and growing people need muscular exercise in order to develop properly; they need it for the skeleton within them, and if they do not get it, their growth will be stunted. Usually, in the case of a healthy child, who, whether indoors or outdoors, is rarely still, the

matter of exercise can be left to take care of itself. A young, growing child who prefers sitting quietly in the house to playing outdoors is not quite normal, and although he may live to old age will never be so strong as his fellows.

Some forms of exercise are quite as valuable for the nervous as for the muscular system; in exercise that calls for skill and balance, such as billiards and fencing, it is the nervous rather than the muscular system that receives an education. Some games, such as baseball, basket ball, golf, and tennis, not only develop the muscles and educate the nervous system, but are useful in training the will, steadying the temper, and promoting good judgment and self reliance. They contribute to mental and moral as well as physical well-being.—*Youth's Companion*.

ONE REASON WHY PEOPLE CAN'T GET WELL

What's the use of being sick? What's the use of paying any attention to food and drink, fresh air and exercise? If you get sick there are plenty of cures. A recent list shows ten advertised diphtheria cures, 53 catarrh cures, 40 skin cures, 37 kidney and bladder cures, 44 rheumatism cures, 13 cancer cures, 48 consumptive cures, not to mention the numerous epilepsies, anti-fat or obesity cures, headache remedies, soothing syrup, powders, tonics, cordials, elixirs and rejuvenators.

Many of these prescriptions, like the 32 asthma cures and most of the remedies for drug habits contain drugs which themselves form habits, but what's the difference? Some people are bound to take dope anyway.

—Selected.

HOUSING AND TUBERCULOSIS

WILLIAMSON summarizes his paper as follows. Pulmonary tuberculosis is a disease which in 70 or 80 per cent. of cases occurs in houses of three rooms and under; the number of cases is larger in two-roomed houses than in three; larger in houses of one room than in two; and the number of cases of tuberculosis increases almost in direct proportion to the number of small houses in any district or ward of a city. Since the year 1882 the number of deaths from tuberculosis has shown a rapid and steady decrease; and a like statement applies to the general death rate and the death rate forms of infectious disease. This decrease has been taking place quite apart from, and irrespective of, any special effort to deal with the condition other than the preventive measures which have

been carried out in the ordinary march of public-health administration. The establishment of sanatoria and dispensaries, while useful aids in carrying on a general crusade against this form of disease, are not of themselves likely to be attended by markedly beneficial results in the absence of other definite preventive measures. Preventive measures centre largely in the housing question, and irrespective of cost, there is an urgent need, in the light of our present-day knowledge, of dealing more effectively than has heretofore been the case with congested areas, dense foci of population and insanitary dwellings.—*Journal of the A. M. A.*

THE TEN COMMANDMENTS FOR THE WOUNDED

Professor Lusena has made up a "declogue" for the Italian soldier which is being distributed to all the Italian soldiers, some of the daily papers having printed it in card form. The instructions emphasize the importance of never touching a wound with the fingers or any object except the contents of a first-aid packet or its equivalent. No attempt should be made to wash the wound, but if tincture of iodine is at hand it should be applied inside the wound. The wound should be covered immediately with gauze from the first-aid packet. Bleeding should be arrested by a tourniquet, but stress is laid on the importance of hastening to obtain medical care as soon as possible, and that if constriction is applied for more than two hours at most gangrene is liable to follow. The declogue is given in full in the *Policlinico*.—*A. M. A. J.*

OUTDOOR SLEEPING

The Outdoor Life says that to keep warm at night you must look out for three things: first, the night clothes you wear; second the bed clothes on top of you; and third the bed clothes under you. In cold weather let the night clothes be soft, loose and warm. If the feet get cold don't hesitate to wear some big woollen stockings and if the head gets cold add a cap. In real cold climates for outdoor sleeping they sometimes wear besides eiderdown pajamas or night dress, a suit of underwear, cap, stockings and a sweater.

CONTROL OF TYPHOID

The most effective slogan for the immediate future in the prevention of typhoid, in Richardson's opinion, must be "Wash your hands before handling food, whether it be for yourself or for other people's use."

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"HOW I EXPECT TO LIVE LONG."

THE late Chinese ambassador to the United States, Wu Ting Fang, recently wrote a striking article on "How I Expect to Live Long," the substance of which has been summarised in the following eight suggestions:—

1. Eating only two meals a day.
2. Abstaining from all flesh food—my diet being rice or wholewheat bread, fresh vegetables, nuts and fruit.
3. Avoiding coffee, cocoa, liquors, condiments, and all rich food.
4. Giving up salt.
5. Masticating every mouthful of food thoroughly before it is swallowed.
6. No drink at all with meals, but between or one hour after.
7. Practise deep breathing.
8. Moderate exercise.

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Your eyes are worth more to you than any book.

Your safety and your success in life depend on your eyes; therefore take care of them.

Always hold your head up when you read.

Hold your book fourteen inches from your face.

Be sure that the light is clear and good.

Never read with the sun shining directly on the book.

Never face the light in reading.

Let the light come from behind or over your left shoulder.

Avoid books or papers printed indistinctly or in small type.

Rest your eyes by looking away from the book every few moments.

Cleanse your eyes night and morning with pure water.—*Selected.*

Don't fight with your destiny. Every adverse circumstance has an advantage. Brains and beauty are not usually given to the same individual. Ugly faces are linked to strong bodies. Slender forms are apt to be crowned with

active minds. The man with a club-foot thinks all through his anatomy. The little man, thank Heaven, has conceit enough to carry him through, while giants, who go stalking through the land, very often die of heart-failure. So don't quarrel with your face. Don't grumble at your destiny. Don't fume over your fate.—*Rev. James L. Gordon, D. D.*

GIVING OTHERS COURAGE.

COURAGE, like cowardice, is contagious. The majority of people are greatly affected by their surroundings, either of nature or of society, and whenever a leader appears, a man strong of will or bold to dare danger, the tone of the entire community changes, the listless becoming eager, the fainting resolute, and the cowardly courageous. The strong man has simply given others of his courage. A midshipman in the navy during his first experience in battle was so terrified by the volleys of the enemy's musketry that he almost fainted. His superior officer observing his condition of terror, approached the trembling lad, and, taking his hand, said in a calm, affectionate way, "Courage, my boy! You will recover in a minute or two! I was just so when I went into my first battle!" The midshipman, who lived to be an honoured officer, said afterward that it was "As if an angel had come to him and put new strength into him." The whole burden of his terror was gone, and from that moment he was the bravest of the brave. If the lad had been sternly reprimanded he might have utterly collapsed and never have recovered from the disgrace. But the kindly sympathy of the superior officer, who gave him at a critical moment of his own courage and high endeavour saved him from cowardice and imparted to him a strength for conflict which grew from year to year. All around us are fainting, the irresolute, the ignorant, and the despairing. Let us first of all strengthen our own hearts and nerve our wills by communion with our Almighty Maker, and then give generously of our courage to those who lack spirit so that they too, when life's honour roll is made up on high, may receive commendatory mention for valour on the battlefield.—*Great Thoughts.*

A CORRESPONDENT from the Bombay side, who is intensely interested in the Temperance problem in India and has ordered 2,500 copies of the Temperance Annual, writes that he could use 1,000 copies more among the students of Bombay Presidency English Schools, but is unable to pay for more. Are any of our readers willing to finance the call, either in part or, in whole. Let us hear from you.

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