HEALTH EDUCATION

BY DR. J. J. MIDDLETON

Provincial Board of Health, Ontario

Dr. Middleton will be glad to answer questions on Public Health matters through this column. Address him at Spadina House, Spadina Crescent, Toronto.

The causes or influences that bring about a laxity of morals is one of the great problems facing all Public Health officials and workers for social betterment at the present time. Professor J. A. Dale of Toronto University in referring to the campaign now being waged against venereal disease in this province cites several influences that may tend towards a lowered standard of morality. While admitting that environment is a powerful factor in the development of character, Professor Dale emphasizes the fact that human beings inherit certain tendencies for good or evil that play a large part in their attitude towards life in general, and their mental, moral and physical make-up.

The original instincts of every human being, he said, determine to some extent his daily acts, the things he notices and his attitude towards these things. There is in some individuals an innate tendency to wrong doing due to faulty heredity, but these tendencies can be in great past eradicated or lessened by the exercise of will control through the choice of lines of action and conduct. Sex instincts, Professor Dale explains, go deep and far, much beyond the mere matter of reproduction of the species. These instincts are intricately woven into the whole human framework. In dealing with such a matter, the problem becomes one of moral education if standards of morality are to be raised. Purification of the mind and body of society is what is needed, but how can this be done? By increasing the moral strength and decreasing moral weakness. Apart from the hereditary tendencies of the individual, there are many influences that undoubtedly bring about a lowering of morals. These influences are well known and commonplace, but none the less dangerous. They include poverty, bad housing accommodation, drink, lack of exercise, delayed marriage, weary monotonous work, idle boredom and, of course, the activities of brothel keepers and moral degenerates.

At once the magnitude of this task towards moral and social betterment becomes apparent. Knowledge, refining influences and healthful activity are badly needed everywhere in present-day life, but it seems sometimes as if radical changes will have to be made in our whole social and industrial system, if the underworld of vice and the tendencies thereto are to be cleared away. Intelligent men and women in all progressive countries are trying to find a common plan or ground work for carrying on concerted action towards a raising of the moral standard of both men and women. At present the work has hardly begun.

OIL OR GAS LOCATED BY THE PENDULUM

EARTH'S DENSITY AFFECTS OSCILLATIONS.

Pendulum Definitely Predicts Absence of Oil and Possibility of its Presence.

We have all stopped before a clock and watched the pendulum go to and fro, and tick off the seconds of time in its ceaseless work. Why it ticks off seconds we probably do not know, and furthermore do not care—we simply know that it is its business to do so. However, there is a reason; it is dependent upon the length of the pendulum and upon the force or pull that causes it to oscillate. If we change its length the period will be different, or if we change the force or pull, retaining the same length, the period will again be different.

Attraction of the Earth.

The pull or force is essentially the attraction of the earth upon the displaced bob of the pendulum, so that if we allow a pendulum of invariable length to swing in different parts of the earth and note the number of swings it makes, say in an hour or in a day, it will give us a measure for determining the difference of pull or attraction of the earth, which would mean that it would tell us the relative distance that we are from the centre of the earth at the various stations of observation. From this it is obvious that the figure or ellipticity of the earth may be found by means of the pendulum.

The figure and rotation of the earth affect the pendulum in two distinct ways. In the northern hemisphere going southward, say from Ottawa to Washington, we get a little farther away from the centre of the earth on account of the equatorial bulge. Then, furthermore, at Washington the centrifugal force is greater, there is a greater tendency to fly off; so that altogether the pull at Ottawa is greater than it is at Washington.

Effects on Spring Balance.

It may be observed that a miner, weighing his gold in the Yukon by means of a spring balance and believing it to represent so many pounds and ounces, would naturally be surprised if he weighed the same gold with the same spring balance in Ottawa, before turning his gold over to the Mint, to find that it weighed less here by something like the 550th part of what it weighed in the Yukon. This is due to no fault of the scale whatever, but simply that gravity is less at Ottawa than at places further north. This is one reason why spring balances are illegal as appliances for weighing. The greatest difference in gravity upon the earth is between the poles and the equator, where the difference amounts to fully one two-hundredthe.

With the great many pendulum observations, or gravity observations, as otherwise called — because by means of the pendulum we determine the gravity of the earth—distributed over many parts of the earth, besides actual linear measurements which have been made, the figure of the earth is determined with a high degree of accuracy, so that at any given latitude we know in advance what the theoretical value of gravity should be or, which is the same thing, we know accurately the length that the pendulum must have in order to swing seconds there.

Rock Formations and Other Minerals

The mean density of the earth, which is a little over five and a half times that of water, has been well determined and more so the densities of the many different kinds of rock formations and other minerals that constitute the crust of the earth, upon which the oscillations are dependent. Any change in the distribution of them will, therefore, affect the time of the oscillations of the pendulum. It is obvious that the nearer matter is more effective than matter more remote in its attraction on the pendulum.

All the preceding is to explain and emphasize that the oscillation of a pendulum is dependent upon the distribution of matter around it and below it.

We are just now at the point of revealing what the pendulum shows and the work carried on by the Dominion Observatory. Let us here say a few words of the pendulums used for gravity observations. These pendulums have no clockwork. They swing on an agate plane supported by an agate knife-edge. The time of oscillation of a single swing is determined to an extraordinary degree of accuracy—to the one ten-millionth of a second of time—the time being derived from the stars.

Tell Whether Oil or Gas is Present.

Hence, if we set up our apparatus, at a place whose latitude is accurately known, and determine the time of oscillation of the pendulum, whose period is known at a given place, like Ottawa and Washington, we will find whether there is an excess or defect of mass about the station or place. In another word, and the revelation is made. We find, for instance, that the pendulum swings too quickly for that particular latitude, which would mean that there is an excess of mass acting on the pendulum. Such a result would absolutely preclude the presence of oil or gas in the rock formation. This is surely something worth knowing to the prospector or company about to drill for oil or gas. It seems a far story that the pendulum, quietly and almost invisibly swinging with small amplitude in a small exhausted iron case, should tell so surely and so well whether oil or gas are below it; for where oil or gas are, the same space cannot be occupied by dense rocks, and if dense rocks are present to excess there cannot be oil or gas in any quantities present, so that the pendulum tells us positively of the absence of oil or gas.

If, on the other hand, we find that the pendulum is swinging too slowly, when its period is too long, this would mean that there is present a defect of mass, the reason for which may be oil, gas or rock of small density, so that while the pendulum is able to predict definitely the absence of oil and gas, which may mean the savings of thousands of dollars uselessly expended in the search for these desirpossibility of the presence of oil or able commodities, it only forecasts the gas.

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On Fire Under the Sea!

For a sunken ship many fathoms under the sea to catch on fire seems almost beyond the realms of possibility.

But it actually happened a short time ago—and in the fire two men nearly lost their lives.

The ship had sunk in fairly deep water, off the Florida coast, with a hole in the bottom of her hull where she had struck a drifting mine, and despite all efforts to raise her to the surface, she had refused to move.

It was decided that the only way to get the boat up was to pump compressed air into the hull, and so force the water out. If that could be done, she would float to the surface.

Two divers went down and, climbing into the ship through the hole in the hull stopped up all cracks in the hold with oiled oakum. This was a simple matter as the large hole that sank her was on the bottom and would not have to be stopped up. Air pumped in would be only able to escape through any holes in the top.

But after air had been pumped into the ship, replacing the water in the main hold, she still would not come up. There was a leak somewhere, and the air was escaping too fast for their purpose.

The two divers went down once more, and climbing into the hold of the boat, now empty of water, stamped heavily about in their weighted boots.

Candles were lit, and armed with these the men made a careful search for the point where the air was escaping, the sudden guttering of the flame showing where the draught of escaping air was.

Then the disaster occurred. One of the flames licked the now dry oakum, which, saturated with tar and oil, instantly burst into flames.

There was no time to force the hatch open and let in the water that surrounded them, and the two men, hampered by their heavy diving suits, had to fight the flames as best they could with their rubber-covered hands.

One tiny hole to be burnt in their suits meant death for the men, either by suffocation by smoke, or drowning when getting back into the water.

Fighting desperately, they beat the flames out at last. Then, more dead than alive, the divers stumbled away to the hole in the ship and signalled to be drawn up to the surface, lucky at not having been burnt to death at the bottom of the sea.

Three Prayers by Stevenson.

In Robert Louis Stevenson's journal of his famous Travels with a Donkey appears a beautiful passage that for some reason was left out of the book when it was published. The Englishman, Mr. William Harris Arnold, who owns many of Stevenson's original manuscripts, has given it to the public along with some other choice bits. We quote:

I find some prayers among the noblest reading in the world; often when I am alone I find a pleasure in making them for myself, as one would make a sonnet. As I walked beside my donkey I made a prayer or two myself, which I here offer to the reader, as I offer him any other thought that springs up in me by the way:

"O God, who givest us day by day the support of thy kindly countenance and hopeful spirit among the manifold temptations and adventures of this life, having brought us thus far, do not, O God, desert us, but with thy continued favors follow us in our path. Keep us upright and humble, and, O Thou who equally guidest all mankind through sun and rain, give us thy spirit of great mercy."

A Prayer for Mind and Body:

"Give us peace of mind in our day, O Lord, and a sufficiency of bodily comfort that we be not tortured with changing friendships or opinions, nor crucified by disease, but ever in strength, constancy and pleasantness walk in a fair way before thy face and in the sight of men; and if it pleases thee, O Lord, take us soon in health of mind and honor of body into thy eternal rest."

A Prayer for Friends:

"God, who hast given us the love of women and the friendship of men, keep alive in our hearts the sense of old fellowship and tenderness; make offenses to be forgotten and services remembered; protect those whom we love in all things and follow them with kindnesses, so that they may lead simple and unsuffering lives and in the end die easily with quiet minds."

Chinese Art in Rugs.

Many very beautiful rugs are now being imported into this country from China. The best of them are of sheep's wool, the raw material being derived from Mongolia.

The people of Mongolia are mostly nomads, their property being in flocks and herds. Wool is their principal market product, and they ship it by caravan. Sometimes as many as 500 camels laden with wool will arrive at Kalgan in a bunch, the stuff being forwarded by rail from that point to Pekin and Tientsin.

Much of this wool is made into rugs, which figure very importantly in the every-day life of the Chinese. The designs woven into them are even supposed to influence the welfare and happiness of the owner. When of first-rate quality they improve with age in lustre and beauty, and are handed down from father to son as valued heirlooms.

Every boatman on the Yellow River carries a rug as a necessary part of his outfit. He squats on it by day and sleeps on it at night. Travellers in Western China always are provided with rugs, to spread on the "kangs" at the inns, which customarily furnish no bedding for their patrons, making it necessary for one to carry it.

The kang is one of China's most important institutions, and is found in every dwelling built across one end of the living room. It is a structure of brick or mud, in the shape of a divan. In winter a fire is kept burning beneath it, and members of the family spend much of their time on it. In poor folks' houses the kang is covered with coarse mats, but in the residences of the rich handsome rugs are thrown over it.

HIS NERVES NOW STRONG AS EVER

How An Ontario Teacher Regained Good Health.

"I am a school teacher by profession," says Mr. James R. Thomson, R.R. No. 1, Centralia, Ont., "yet when I started school teaching I was in very poor health. I suffered a nervous breakdown, brought on by overwork and no relaxation. I was unable to think, to act, or even to eat properly. Queer little prickly sensations were continually running up and down my back, my arms and my legs, like so many needles, seeming at times to fairly paralyze me, and often my heart was thumping like a trip-hammer. I determined to consult our family doctor, and he immediately put me under orders. I had to give up my school and return home in order to recuperate my lost health. Milk was his chief remedy, and I drank quarts of it; yet, though it helped me, it did not build me up to my normal condition—something was missing; something my system was calling for, better blood. One day, when I picked up a newspaper, I came across an advertisement of Dr. Williams' Pink Pills suggesting just what was needed in my case—new, rich, red blood. I immediately sent for a box, and when the doctor visited me, I told him I had decided to try Dr. Williams' Pink Pills and he seemed satisfied. By the time my box was nearly done, and I determined to get another, by the time I had finished this I was gradually coming back to normal. My strength was returning, I could sit and walk without strain. For the next few weeks I continued to take the pills, and they were working wonders with me. My head was becoming clearer, my memory better, and my nerves were becoming steadier. I began to go out frequently, enjoying myself. My appetite improved and was even better than before I had my break-down. I was myself again. I got back my school, and to this day I have had no return of the trouble, and now when anyone comes to me with nervous trouble, I instantly suggest Dr. Williams' Pink Pills as a remedy, as I believe that what they did in my case they will do for others."

Dr. Williams' Pink Pills can be obtained from any dealer in medicine, or by mail at 50 cents a box or six boxes for $2.50, from The Dr. Williams' Medicine Co., Brockville, Ont.

London's Skyline to be Raised Twenty Feet.

Opposition to the city authorities of London to the erection of tall buildings now seems to have ended, or rather is rapidly passing. Convinced that tall buildings are safe and a commercial advantage, the London County Council, which holds the power to regulate things in the English capital, has decided to allow structures of large area to be built 80 feet high. This is twenty feet higher than the maximum height now permitted. The decision is the result of a report made by a commission appointed by the Council to study the question of taller buildings in London. The commission reported in favor of greater height. Every progressive city in the world has skyscrapers. They are the outward mark of progress.

Although the commission reported favorably and the council thought that London should be allowed more than 60 feet building height, the fire brigade was consulted. The head of the fire-fighting force said that the extra height would not interfere with the efficiency of his force.

With everyone favorable to taller buildings, it now seems certain that London's skyline will be lifted higher than it has ever been before.

Improved Electric Welding.

Electric welding has two principal applications, the arc and resistance processes respectively, spot welding being a special modification of the latter applied to sheet work. These applications are unsuitable for complicated work or for sections of irregular profile, so the fusion process has been employed.

By this process the two pieces to be welded are brought sufficiently close to strike a series of arcs between them. The pieces are than gradually drawn together, so that the whole welding area appears to be enveloped in a shower of sparks, the sections being thus gradually melted in an even manner over the whole area.

The current is then switched off, and the two pieces are pressed together and united.

The strength of welds made by this process is claimed to be 98 per cent. of that of the unwelded material, and the process can be successfully applied for welding tube strips or similar material, and especially for welding tool steel cutting ends to ordinary iron or steel holders. In such cases and for all large sections it has been found advisable to bring the pieces to a red heat by using the current as in ordinary butt welding, forcibly separating them if necessary with the current switched off before starting the fusing process.

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Dear Sirs,—Since the start of the baseball season we have been hindered with sore muscles, sprained ankles, etc., but just as soon as we started using MINARD'S LINIMENT our troubles ended. Every baseball player should keep a bottle of your liniment handy. Yours truly,
W. E. McPHERSON,
Sec. Armstrong H. S. Baseball Team.

"There are many under-nourished or improperly fed children in this country, whose condition, both physical and mental, would be greatly improved by a more liberal use of milk in the diet."—Dr. J. A. Amyot, Deputy Minister of Health.

Minard's Liniment for Burns, etc.

Chemists Seek New Auto Fuel

"Alcohol can never be anything more than a help where motor fuels are concerned," an official of the U.S. Bureau of Mines said recently. "All the alcohol we are able to produce can be profitably used in the making of fuel mixtures, but, for all that has been said to the contrary, the quantity obtainable is relatively small.

"Much has been said about the utilization of cornstalks for making alcohol on an enormous scale, but there is nothing in the idea. Cornstalks are bulky; it would not pay to transport them in great quantities to big central plants for distillation. To make such use practicable there should be a plant for every five square miles, run perhaps on a co-operative plan by farmers. But how many billions of dollars a year would it cost to watch the farmers and see that the alcohol was not sold for beverage purposes?

"In the year 1921 we consumed in this country 7,080,000,000 gallons of gasoline. During the same period we exported 1,954,000,000 gallons. Our production of alcohol in the twelve-month was about 100,000,000 gallons. So you see how small a figure relatively the alcohol cut.

"Alcohol can never take the place of gasoline as a motor fuel. There would have to be a special carburetor to vaporize it, and the power generated by it is not nearly so great as that obtainable from gasoline or a mixture.

"The so-called 'auxiliary' motor fuels are composed either of gasoline and benzol or of those two with alcohol added. Benzol, as you doubtless know, is a by-product of coal distillation. It was produced on a large scale incidentally to the distillation of coal for toluol during the war—the toluol being required for the manufacture of high explosives—and since then the output of benzol has been continued.

"In Brazil trials have been made of mixtures containing alcohol, kerosene, sulphuric acid and even castor oil; but they have not been successful. Official reports on results obtained acknowledge, first, fewer miles to the gallon; second, diminished power, with consequent difficulty on steep grades or with heavy loads; third, trouble in starting the motor in the morning after several hours' idleness; and, fourth, dissolvent effect on tanks, pipes, etc., with consequent clogging of the carburetor.

"The way out? It is hard to say what it will be, but it is sure to be found. Most likely it seems that we shall learn how to make use of lower-grade fuel with a higher boiling point, perhaps even kerosene, though in order to accomplish that we must work out the problem of engine construction on new lines."

HEALTHY CHILDREN ALWAYS SLEEP WELL

The healthy child sleeps well and during its waking hours is never cross but always happy and laughing. It is only the sickly child that is cross and peevish. Mother, if your children do not sleep well; if they are cross and cry a great deal, give them Baby's Own Tablets and they will soon be well and happy again. The Tablets are a mild but thorough laxative which regulate the bowels, sweeten the stomach, banish constipation, colic and indigestion, and promote healthful sleep. They are absolutely guaranteed free from opiates and may be given to the new-born babe with perfect safety. They are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

Upon being asked by his mother why he was so thoughtful, the young hopeful, aged seven, replied: "I was thinking how awful it must be to be deaf. Fancy washing your ears every day and never getting any good out of them!"

Minard's Liniment for Dandruff.

Couldn't Carry It.

An Irish comedian once met, on a summer's day in Galway, a man driving a horse so thin that it staggered as it walked.

"Why don't you put more flesh on that nag?" he exclaimed indignantly.

"More, is it?" the Irishman answered, "why, by the powers, don't you see that the poor creature can hardly carry what little there is on him now?"

CORNS

Lift Off with Fingers

Doesn't hurt a bit! Drop a little "Freezone" on an aching corn, instantly that corn stops hurting, then shortly you lift it right off with fingers. Truly!

Your druggist sells a tiny bottle of "Freezone" for a few cents, sufficient to remove every hard corn, soft corn, or corn between the toe, and the callises, without soreness or irritation.

If your thought is profound, all the more should you see that your words be simple and clear.

Minard's Liniment Relieves Neuralgia

We are perfectly willing to accept the rule of the majority, providing the majority says what it ough to say.

ISSUE No. 19—'22.

MME. BROCHU LIVED ON VICHY AND MILK DIET

But Now Montreal Woman Eats Anything and Feels Fine All the Time—Gives Tanlac Full Credit.

"For nearly five months before taking Tanlac I had to live on milk and vichy water alone," said Mme. Louisa Brochu, 1366 Amity St., Montreal, Que.

"I suffered so much the past two years I was almost a wreck. My indigestion was so bad I was almost afraid to eat for everything disagreed with me. My liver got to troubling me too, and pains in my side nearly run me wild. Nearly every night my sleep was broken by terrible headaches.

"I took the first bottle of Tanlac to please my husband, who worried over my case, but my second bottle I took of my own accord for I was beginning to feel so fine. I have a good appetite now, eat anything, and have no more trouble from pains or sleeplessness. I think Tanlac is wonderful.

Tanlac is sold by all good druggists.

Comfort for the Scrub Lady.

Scrubbing is hard labor. This is a fact so manifest that a New York inventor, George A. Blank, has been inspired to originate a contrivance that will render it less arduous. It is a little platform that runs on casters, and is upholstered for the greater ease of the scrubber kneeling upon it. While thus kneeling she can easily propel herself from place to place over the floor by her hands. In the middle of the front of the platform is a circular receptacle for soapy water or other cleansing fluid, which is prevented from splashing out by a downward-bent ring around the interior edge.

Thus the scrubber needs no pail, and for brush and cake of soap, the platform is provided with a couple of shelves, one at each end.

MONEY ORDERS.

It is always safe to send a Dominion Express Money Order. Five Dollars costs three cents.

The first bicycle of the modern type, with two wheels of about the same size, was brought out in 1886.

Minard's Liniment for sale everywhere

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You can move your furniture easily and smoothly over any carpet or floor with little effort. The "Onward" saves rugs from wear and tear.

Simply and quickly put on without screws or sockets.

Tell your dealer all furniture you buy must be equipped with glass base Onward Sliding Furniture Shoes.

All sizes and styles, both glass base and smooth metal base

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TORONTO SALT WORKS
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A man has no right to be satisfied unless he has done his best.

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If you have fullness after meals, a bad taste in your mouth in the morning, fur on the tongue, flatulence after meals and no appetite, take Mother Seigel's Syrup. It will clean your tongue, restore your appetite, give you relish for food and the power to digest it thoroughly and easily. Sold in 50c. and $1.00 bottles at drug stores.

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Satisfies every want of the most critical in cleansing, purifying and beautifying the skin and complexion. Nothing purer, sweeter, or more effective for every-day toilet requirements.

WILL ANSWER ANY WOMAN WHO WRITES

Montreal Woman Finds Health by Taking Lydia E. Pinkham's Vegetable Compound

Montreal, Quebec.—"I was a sufferer for three years, not able to do my housework. My husband was discouraged, for I was no better and had had the doctor all this time and nothing helped me. I was always sleepy, had no appetite and suffered with my left side. My mother in England recommended Lydia E. Pinkham's Vegetable Compound because it had helped my sister, so I have been taking it. I am now able to do my housework and I can not praise your medicine too highly as I have great hopes for the future. I will tell anyone who writes to me what good it has done me."—Mrs. E. Masson, St. Henry P. O., Montreal

For nearly fifty years Lydia E. Pinkham's Vegetable Compound has been helping women just as it helped Mrs. Masson; oftentimes after doctors and other medicines failed.

If you are suffering from disagreeable symptoms caused by some female weakness, try this splendid medicine. It is a woman's medicine for women's ailments, and can be taken in safety by any woman.

Genuine

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Aspirin

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Earache	Lumbago	Pain, Pain

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