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LIFE AT THE ORIGINAL WATER-CURE.*

THE whole landscape was flooded with sunshine when we started out to climb the long hill, half-way up which shone the whitewashed walls of the great Silesian Water-Cure. It was, nevertheless, the weather of a belated spring,—so cool that we covered ourselves against its breath with our winter overcoats, although stoutly underclothed with flannel. Particular notice is called to this fact, as it is of considerable interest when taken in connection with the butterfly costume in which we fluttered about a few days afterward.

Through streets of solid stone and plaster houses, we passed into a narrow sweep of meadows, and crossed a lively brook of clear water, variously useful in washing invalids and dirty clothes. In the shop-windows were displayed huge brogans, stout canes shod with iron, drinking-horns, and pretty cups of Bohemian glass, all significant of the teetotal peripatetic society into whose haunts we were about to venture. Half-way up the hill we came to a little fountain, where a solitary individual was swallowing water with an air as if he thought very little of the liquid, but supposed it was good for him. Some hundred yards farther on was another fountain, dripping from the base of an obelisk of gray stone, on which shone the inscription, "*Au Genie de L'eau Froide.*"

From here onward, we met numbers of people of a cheerfully crazed appearance, wandering confusedly hither and thither, like ants when you scatter their nests. All were shabbily attired, some in linen, some bareheaded with clipped hair, others with towels around their temples, their pockets bulky with glass cups or their shoulders harnessed with drinking-horns. Most of them carried thick canes, and raced up the eminences like Christian climbing the hill Difficulty. Ladies, too, were among the number, shoeless and stockingless, wading through the dewy grass, their feet burning with what Dr. Johnson would have called auroral frigidity and herbiferous friction. They all kept in constant motion, and seemed never to speak to each other, reminding me of those bewildered knights in Ariosto's enchanted palace, who wandered perpetually up and down, hearing the voices of dear friends, but seeing no one. The center of movement for this distracted crowd was an irregular square, stony and verdureless, on one side of which rose two enormous, ghastly buildings, with multitudinous windows, constituting the establishment proper; while opposite to

* From an old magazine.

these, at various distances, glared low, whitewashed cottages, also used for the storage and cleansing of a vast invalidism. From a concavity in the masonry of the outer stairway to the principal edifice, gushed a hearty little jet of water, abundantly supplying the horns and cups which were continually presented to its humid mouth.

Priessnitz was absent for the day at Freiwaldau; but a bathman led us to the superintendent of the establishment. Bare, creaking stairs and floors brought us to a prodigious desert of an eating-room, where the superintendent, a short, flabby man, with a baldish crown, an apple-dumpling face, and white eyes, came to receive us. I have forgotten the exact price which he asked for board and lodging, but it was something extremely insignificant — not more, certainly, than three dollars a week. It was so much like gratuitous hospitality that we at once sent a porter to the inn for our trunks, and followed the superintendent to one of the cottages. We found it a very rustic one, built of raw clapboards, and approached through a puddle, the overrunnings of a neighboring water-trough. It had begun life, indeed, as a stable; but we objected very little to that, as the scent of quadruped life had been totally exorcised from its breezy chambers. The floors and partitions were of the consistency of pasteboard, and we saw at once that if we did not wish to disturb our neighbors, we must live in a whisper. Everything was of unpainted pine — the walls, the narrow bedsteads, the chairs, and the washstands.

There were only three chambers for four of us, but one of them was double-bedded and double chaired. We tossed up kreutzers for the single rooms. While the trunks were coming, we began a dance of celebration of our advent, thinking that perhaps we should never feel like it again. Presently we heard a yell of fury from below, accompanied by a double knock against the floor under our feet, from what seemed to be a pair of boots. We paused in our Shaker exercises, questioning what abodes of torture might exist beneath us, and what lost mortal or demon might inhabit them. We afterward learned that a neuralgic Russian lived on the first floor, and, feeling annoyed by our clamor, had sought to mend matters by howling and throwing his shoe-leather about.

Presently we all gathered in the passage to catechise a young Englishman, who was also (in)stalled in our ex-stable. Having been three months under treatment, he could give us some idea of what we were to do and to suffer; but in the middle of his talk, he was imperiously summoned away by a moist, cool executioner, armed with a wet sheet. In a moment more we heard, with mingled mirth and horror, the rasping splash of the dripping linen, as it fell upon his body; and a quarter of an hour afterward we saw him hurry out with wet locks, and make off at a shivering canter for the mountain paths.

By half past twelve we were bearing our empty, expectant stomachs up and down the great eating-hall. Patients followed patients through the creaking doors, until nearly two hundred sick, blind, and deformed people were hungrily patrolling around the long tables. Eight or ten neat, curiously white-faced damsels hurried in and out, loaded with piles of plates, or with monstrous loaves of what seemed to be mahogany bread. Presently they all entered in a column, bearing spacious smoking platters of meat and vegetables. No other signal was necessary to the famished invalids, who immediately made haste for the tables. However sick they may have been in other respects, they were certainly well enough to eat; and I think I never saw, before nor since, such

A SCENE IN NEW ZEALAND.

an average large appetite among such a number of people. We afterward learned that Priessnitz counseled his patients to eat all they desired, the more the better; for the peasant was as perversely hard in his treatment of a stomach as if one carried a crop and digested with pebbles, like a chicken; maintaining, among other heresies, that a water-patient's gastric powers should be strengthened by hard work as much as his legs by hard walking. Partly in consequence of this monstrous theory, and partly because of the native savageness of Silesian cookery, the food was of the worst description, consisting of such horrors as veal ten days old, sauerkraut, and the most unsusceptible dough balls. Such a diet would produce a galloping dyspepsia in any one who was not invigorated by frequent baths and wet rubbings; but as things were, I imagine that no great harm was done, and that in a general way, two hundred ostriches could not have digested better. A man who takes four cold duckings a day, walks five or six miles after each of them, and wears a wet bandage over his abdomen, may confide, even to recklessness, in his gastric juices.

Our meal closed with immense fruit pies, not much less than two feet in diameter. All these indigestibles gave our stomachs exercise until six o'clock, when the table was again set with fragments of the mahogany loaves, and pitchers of sweet and sour milk. At ten we went to bed, and discovered that we were expected to keep warm with one blanket apiece, although the weather was chilly enough to palliate the use of four. However, for fear of a wet sheet or some other cold comfort, we took care to call for no additional covering, and supplied the lack with our plaids and overcoats.

VINCENZ PRIESSNITZ.

Early in the morning, Priessnitz himself came into our room, followed by Franz, the bathman. I saw before me a medium-sized person, with weather-beaten features; a complexion which would have been fair but for the deep sunburn; eyes of blue inclining to gray; thin, light brown hair touched with silver; and an expression reserved, composed, grave, and earnest. He sometimes smiled very pleasantly, but he spoke little, and wore in general an air of simple, quiet dignity. Altogether, I felt as if I were in the presence of a kindly tem-

pered man of superior mind, accustomed to command, and habitually confident in his own powers. I afterward observed that he kept the same impassive self-possession in the presence of every one, were it even the highest noble of the Austrian Empire.

He listened to a brief history of my malady, seeming very indifferent to its past symptoms, but examining attentively the color of my skin and the development of my muscles. He then ordered the wet sheet to be spread, and signed for me to stretch myself in it. As soon as I had measured my length on the dripping linen, Franz folded me up rapidly, and then packed me thickly in blankets and overcoats, as if I were a batch of dough set away to rise. My roommate followed my damp example, and our teeth were soon chattering in chilly sympathy. Having noted the intensity of our ague, as if it were a means of judging what degree of vigor in the treatment we could bear, Priessnitz left us. My friend Neuville and I remained as fixed, and nearly as moist, as King Log in the pond, but in a state of anguish far beyond the capacities of that stolid potentate. We were so cold that we could not speak plainly, and shivered until our bedsteads caught the infection. Then a change came, a graduated, almost unconscious change to warmth, and at the end of ten minutes it was hard to say whether we were uncomfortable or not. A few moments more brought a sensation of absolute physical pleasure, and I began to think that, after all, water was my element, and it was quite a mistake that I was not furnished with tasty red fins like a perch.

Just at this pleasant stage of the experience, when I would have been glad to continue it longer, Preissnitz came back and declared us ready for the plunge bath. Franz turned up the blanket so as to leave my feet and ankles free, shod me with a pair of straw slippers, set me unsteadily upright, like a staggering ninepin, took firm hold of my envelopments behind, and started me on my pilgrimage. I set off at the rate of a furlong an hour, which was the top of my possible speed under the circumstances. Forming a little procession, with Priessnitz ahead as officiating priest, next myself as the walking corpse, and then Franz as a sexton, we moved solemnly on, until we reached a stairway leading into a most gloomy and low-spirited cellar. Dark, rude, dirty flagstones were visible at the bottom; while from an unseen corner bubbled the voice of a runlet of water. The stair was so steep and the steps so narrow that it seemed impossible to descend without pitching forward; and confining myself desperately to the attraction of gravitation, I cautiously raised my left foot, making a pivot of the right one, wheeled half a diameter, settled carefully down six inches, wheeled back again to a front face, brought my dextral foot down, and found myself on the first step. Ten repetitions of this delicate and complicated maneuver carried me to the floor of the cellar.

Franz now guided me into a side room, and halted me alongside of an oblong cistern, brimming with water, supplied by a brooklet which fell into it with a perpetual chilly gurgle. In a moment his practised fingers had peeled me like an orange, only quicker than any orange was ever yet stripped of its envelope; and the steam curled up from my body as from an ear of boiled corn. Priessnitz pointed to the cistern like an angel of destiny signing to my tomb, and I bolted into it in a hurry, as wise people always bolt out of the frying-pan into the fire, when there is no help for it.

In a moment my whole surface was so perfectly iced that it felt hard, smooth, and glossy, like a skin of marble. I got

out on the first symptom of permission, when Franz set about rubbing me down, with a new linen sheet still possessed of all its native asperity. If I had been a mammoth, or an ichthyosaurus, with a cuticle a foot thick, he could not have put more emphasis into his efforts to bring my blood back to a vigorous circulation. Priessnitz joined in as if he enjoyed the exercise, and honored me with a searching attrition from his knowing fingers. Then, after examining me to see if I grew healthfully rosy under the excitement, he signed me to throw a dry sheet over my shoulders and give myself an air bath before the window, into which a fresh morning breeze was pouring. Holding tight with both hands to the corners of the sheet, I flapped my linen wings as if I were some gigantic bat or butterfly, about to take flight through the orifice, and soar away over the meadows.

"Goot!" said Priessnitz, nodding his solemn head in token of ample satisfaction; and folding my drapery around me, I marched up-stairs, like a statue looking for a pedestal, or a belated ghost returning to its churchyard. I met Neuville descending with a stiffness of dignity which made me think of Bunker Hill monument walking down to get a bath in the harbor — so woefully solemn, so dubious about his footing, so bolt upright, and yet so tottering.

Once more in the double-bedded chamber, I gave myself a few hurried rubs, and was about to dress when Neuville and Franz reappeared from the lower regions. With shivering fingers I seized my thick under-wrapper and proceeded to don it, with a glorious sense of anticipatory comfort. But that atrocious Franz saw it, snatched it, tucked it under his arm, then made a grab at my drawers and stockings and then signified by menacing signs, that I was to leave my coat on its nail. No luckless urchin at Dotheboy's Hall was ever stripped half so pitilessly. As for Neuville, who had been toasting himself over American fires through the mediocre chill of a Florentine winter, and was as sensitive to cold as a butterfly or a weathercock, or a Mr. Jarndyce himself, he was despoiled with the same hyperborean unkindness. Out we went, nearly as thinly dressed as Adam and Eve, but leaving no Paradise behind us; forth we hurried, driven by Franz, that bald-headed cherub, horribly armed with a wet sheet; away into the woods we fled, to wander like Cains, and drink three or four tumblers of water before we might venture back to breakfast.

I took my first taste at the house fountain, and swallowed a pint with difficulty. I seemed to be full of water, oozing with it at every pore, like the earth in springtime; ready to brim over with it if I were turned ever so little off my perpendicular; fit to boil and steam like a tea-kettle, should I incautiously venture near a fire. It is astonishing how much moisture can be absorbed into the body through the skin; how nearly a man can resemble a water-logged ship or a dropsical cucumber.

(*To be continued.*)

THE trees that lift their leafless limbs in March
Are like the specters that our dreams invade:
Let one May morning kiss the sky's blue arch,
And lo! the ghosts are laid.

— *Clinton Scollard.*

EDUCATION AMONG THE MAORIS.

BY MAUI POMARE.

THE Maori house of learning always faced toward the east. It was built on a piece of ground especially dedicated to, and made sacred for, the purpose. All the tribes were engaged in the preparation of the material, but the priests alone erected the building, and the work was generally accompanied by incantations. All the woodwork was elegantly carved.

SIDE WALL OF A MAORI SCHOOLHOUSE, COMPOSED OF CARVED UPRIGHT PILLARS CONNECTED BY WOVEN MATTING.

At the lower end of each pillar by which the house was supported were hideous-looking carved *tikis*, or men. These were to represent ancestors, and intended to make the place more sacred. These schoolhouses were of different sizes, but always large enough to accommodate thirty or more students. At the dedication ceremony dogs and slaves were frequently killed, and the blood of the victims offered to the gods.

The students were selected from the noblest families in the tribe, and each student had to go through a certain ordeal before being admitted. After the ordeal, came the service of making the student sacred, incantations being offered that he might have keen perceptive powers. The school began in the autumn, and lasted through the winter, ending in the spring. The time for opening the school was punctually at sunset, and it lasted till midnight. Students who chanced to fall asleep were immediately dismissed. The students ate and slept in the same house with the school, but all cooking was done by picked women of the tribe, and away from the school of learning, the food being brought and set outside at a certain distance, for the place was considered exceedingly "tapu," or sacred.

The course of study pursued was as follows: Ancestral history, legends, and songs, also the native system of belief,

Sacred Feather Boxes of the Maoris, Carved with Green-Stone Implements and Inlaid with Mother-of-Pearl.

with its songs and incantations, the genealogy of their gods, and the genealogy of each student. It is interesting to note that this custom of preserving the pedigree is still in vogue; and one who cannot look back further than his father or grandfather is considered a nobody in New Zealand, even at the present time. Besides these things, the native youth were taught astronomy; for it was considered very important for them to know the different stars, their appearance and disappearance, and the meaning of their presence or absence, as by the constellations the native discerned the times and seasons; in fact, the sky was his timepiece. He knew by the stars whether there would be a plentiful year or not, and when it was time to fish, hunt, or catch certain birds. By the heavens he was able to steer his canoe across troubled waters at night on expeditions of war or peace.

Botany, too, was taught in these schools of the nobility, the medicinal values of each plant being thoroughly discussed, and the food properties of some. The student was exhorted to study nature. Geology also had its place, and many are the legends which relate how certain celebrated green stone (nephrite) weapons were first dreamed of. The qualities of certain stones were studied and the use they might be put to, as the making of knives, chisels, surgical instruments, and weapons of war.

During the day these students came forth from their house of training, and busied themselves in sports of different kinds, especially in the use of the javelin and the other Maori implements of warfare. Thus by skirmishes and hard training they became dextrous in the use of these weapons against the time of war as well as in the use of their tongues for the time of peace.

The school building was also used as a council chamber by the chiefs, and deep and important questions relating to the welfare of the tribe as a whole were there considered. This was in fact their House of Congress. Here, too, the astronomers met to compare notes as to their observations relating to the crops, the hunting expeditions, and other matters of importance.

The ancient Maoris had also a school of agriculture, where all except those who attended the school or college just described were taught the art of cultivation by competent teachers. This was also held during the winter months, and very often the program would be varied by entertainments of different kinds in the school building, consisting chiefly of songs and dancing. One other amusement worthy of mention is what the natives call "*pato*" (snap), but I think it might more properly be called Maori Indian clubs. Natives would either stand or sit in rows, opposite each other, while the musicians kept time by singing or playing on flutes. Then two pieces of wood about eight inches long were handed to each one in the room, and the exercise was derived from throwing these pieces of wood back and forth to each other in different fanciful ways, and catching them again, in perfect time to the music. To see it done is much better than any attempt at description, especially from one who is endeavoring to express himself in a difficult foreign language. The sticks were afterward collected, and, standing up, the natives performed what might be called Delsarte movements, keeping time to the music.

The system of learning among our people, like everything else, has now changed to suit the times. The Maori youth no longer listens to the repetition of the ancestral lore of his forefathers, but may be found in English colleges and universities competing with his more fa-

vored white brother. Instead of the sacred Whare-Kura and the priests, we have now the advantages of a European education. Where superstition once reigned, European enlightenment now holds sway. You will find the Maoris in cities occupying positions as clerks, mechanics, lawyers, ministers, and in other situations of trust; though there are some who still cling to the old ways, and do not take kindly to the new order of things. There are several Maoris in the legislature of our country; and as to their abilities I cannot do better than to quote the words of Dr. Grace, spoken when the legislative council adjourned in consequence of the death of one of the chiefs of my tribe in 1887: —

"It is impossible for me to consider the disappearance of a man like Wi Tako Ngatata from our midst without giving expression to the boundless feeling of admiration I entertain for men of his type. If we have not sufficient greatness of soul to set the proper value on the services rendered to this colony by men like Wi Tako Ngatata, we are not worthy of the security which we owe so largely to their efforts. There was a time when Wi Tako held the balance of power between the Maori king, Potatau, and the English queen,— a time during the war when he had two thousand armed men under his control; and had he thrown his tomahawk to the right or left, and lent his influence to the Maori king, I do not know what would have become of this settlement. We have lost in him one of the greatest men that this country, rich in great men, has ever borne. What sacrifices the honorable gentleman has made for the benefit of the Europeans! By his loyalty to us he imperiled his influence with his native race.

"Every one must remember how the spirit of nationality, with a volcanic throb, moved the Maori people at that time. Who can fail to see the greatness of soul which actuated Wirema Tamihana when he conceived of a Maori nationality; and who, realizing this, can fail to admit the nicety of the balance of power between the races that existed at that time? It was then that Wi Tako, failing to be carried away by the passing impulse of the moment, holding the balance between the two races, gave us the full advantage of his sympathy and, ultimately, of his support. I have heard the late Dr. Featherston say of him, 'Wi Tako is the cleverest man, white or black, in this country.'

"I know that forty years ago, at a time when native troubles were balanced with the greatest nicety in the Hutt, Wi Tako was always found protecting the rights of the Europeans. His word was as trusty as ever his tomahawk had been, and, as was well said of him, he 'had no two tongues'— what he promised he performed. I have seen many aspects of the late war. I have seen the various warlike tribes engaged either on one side or the other; and I remember to-day with glowing admiration the chivalry, valor, and magnanimity of this great race of people who are dying out from among us, leaving but the memory of their achievements behind them."

Wi Tako Ngatata was himself taught in the school of the Maoris; and if men like him could rise out of the ancient schools, may we not entertain the thought that the visions of Macaulay and Gibbon may yet come true, that we may yet have an intellectual wild flower whose scent shall permeate the land of Shakespeare and Gladstone, from the balmy isles of the sea?

HEALTH HABITS OF ELIZABETH CADY STANTON.

MRS. STANTON is one of the best-known women in this country, and her untiring efforts for the uplifting of her sisters have endeared her to the hearts of every lover of her race. In the following extract from a letter written several years ago, she tells how she has been enabled to preserve her wonderful powers of body and mind for so great a number of years : —

"My habits of life have always been comparatively quiet and regular, — long walks and journeys on horseback in my young days ; active work in the house and garden in later years ; and now short strolls on the blue hills of Jersey, drives and moderate pacing on the piazza. Although I enjoy society, I love to be alone. To read and think and write are my greatest pleasures. I love children and a quiet, orderly home.

"We usually breakfast at eight in summer and half-past in winter ; immediately after is my best time for work. Some days, when deeply interested in what I am writing, I work all day without the slightest feeling of weariness ; at other times I am soon weary, and accomplish little. I have but few fixed habits. I like to change the furniture in my house about in every possible way, and the current of my thoughts to various subjects. . . .

"I am a moderate eater, enjoying simple food. I have always worn my clothing loose, resting on my shoulders, made of the lightest material, with the lightest trimming possible ; large boots, broad soles, and low heels, consequently my feet have kept up with the weight they were required to carry. Not a nerve or a muscle, from head to foot, suffers any pressure from clothing. My teeth are all sound, my hair luxuriant, my hearing perfect, and my eyes still able to read the fine print of the New York *Sun* with spectacles. I have brought up seven children, kept house half a century, and worked in all the reforms.

"For eight months of the usual lyceum season I lectured steadily for twelve years. Those only who have had the experience can appreciate the hardships of that life, — traveling night and day, early and late, hurrying from point to point ; uncomfortable beds, unpalatable food, and constant anxiety in filling appointments, none of which I ever lost when it was possible to fill them. And, now, in the sunset of life, I am still busy with pen and tongue, as deeply interested as ever in all the questions of the hour, feeling with Longfellow that —

> "'Age is opportunity no less
> Than youth itself, though in another dress;
> And as the evening twilight fades away,
> The sky is filled with stars, invisible by day.'"

SOWING WILD OATS.

IT has long been believed by parents of a certain class that their sons must "sow their wild oats." Accordingly, at school and at college the boys are supplied with money and given considerable liberty, with the idea that they will settle down after a time, and become good men. Yet vice and sin are sure to leave their mark. There is no greater mistake than to believe that a young man will turn out just as well in the end if left to find out the world's impurity for himself, instead of having his thoughts rightly directed before he leaves home, and while the mother's influence may yet make a lasting impression. No matter how much others have

learned by sowing their wild oats, every one has paid dearly for his insight into life who has been left to learn its real worth when it was too late to be pure and true. It is an utterly pernicious doctrine and a crying sin — this belief that no young man can be expected to reach maturity without being loose in his morals for a time. Not only does this idea frequently lead to the ruin of young men, bringing shame upon them and their parents, but the youth who has been so taught proves a means of contamination to those who have been taught that they can be pure. No young man who has been started right will, it is true, accept any such dogmas; yet many who are still unsettled will be influenced by an acquaintance who is known to be "fast."

Give the growing boy proper instruction at home, beginning before any other influence can possibly affect him, and he will know how to give the proper turn to everything he hears from an improper source. He will, if brought up wisely, turn with repugnance from the one who is sowing his wild oats. He will lend a good influence wherever possible; and although he will be deemed "innocent" by his fellows, he will be superior to their taunts, and in the end know as much about the darker side of life as any one should who is to pass through it simply as an observer, uncontaminated and true.

School-teachers, and all who in any way have to do with the education and training of children, should co-operate in this matter. Instead of "winking" at evil practises, and thinking that the boys will "sober down" in due time, they should be firm in the conviction that the youth in their care can be preserved unspotted from evil. No one can deal righteously with children who does not co-operate in this way. It is a sin to send the young out into an unknown society, uninstructed, to be bitten and then regret it; and those who do so are helping to make sinners. The young may have pleasure without being immoral. It is not necessary to be too strict in order to keep them pure; but it is the highest duty of fathers and mothers to imbue their children with a sense of the sacredness of life — the coming years for which they are receiving their education — so that no mistaken doctrine and no selfish impulse shall lead them to place anything else before purity and manhood. — *Horatio W. Dresser, in the Philanthropist.*

PARTS THAT DO NOT GROW OLD.

Dr. Balfour tells us that there are two parts of the human organism which, if widely used, "largely escape senile failure." These two are the brain and the heart. Persons who think have often wondered why brain workers, great statesmen, and others should continue to work with almost unimpaired mental activity and energy up to a period when most of the organs and functions of the body are in a condition of advanced senile decay. There is a physiological reason for this, and Dr. Balfour tells us what it is. The normal brain, he affirms, "remains vigorous to the last," and that "because its nutrition is specially provided for."

About middle life, or a little later, the general arteries of the blood begin to lose their elasticity and to slowly but surely dilate. They become, therefore, much less efficient carriers of the nutrient blood to the capillary areas. But this is not the case with the internal carotids, which supply the capillary areas of the brain. On the contrary, those large vessels "continue to retain their

pristine elasticity, so that the blood pressure remains normally higher than within the capillary area of any other organ of the body. The cerebral blood-paths being thus kept open, the brain tissue is kept better nourished than the other tissues of the body."

Who is there among those who have reached or passed middle age that will not be rejoiced to find such admirable physiological warrant for the belief that the brain may continue to work, and even to improve, almost to the very last hour of life? —*Sel.*

WHAT A BOY CAN DO.

A BOY can make the world more pure
By kindly word and deed;
As blossoms call for nature's light,
So hearts love's sunshine need.

A boy can make the world more pure,
By lips kept ever clean;
Silence can influence shed as sure
As speech — oft more doth mean.

A boy can make the world more true,
By an exalted aim;
Let one a given end pursue,
Others will seek the same.

Full simple things, indeed, these three,
Thus stated in my rhyme;
Yet what, dear lad, could greater be —
What grander, more sublime?

— *Sel.*

Prompt People.— Don't live a single hour of your life without doing exactly what is to be done in it, and going straight through it from beginning to end. Work, play, study — whatever it is, take hold at once, and finish it up squarely; then to the next thing, without letting any moments drop between. It is wonderful to see how many hours these prompt people contrive to make of a day; it is as if they picked up the moments which the dawdlers lose. And if ever you find yourself where you have so many things pressing upon you that you hardly know how to begin, let me tell you a secret: Take hold of the very first one that comes to hand, and you will find the rest all fall into line and follow after, like a company of well-drilled soldiers; and though work may be hard to meet when it charges in a squad, it is easily vanquished if you can bring it into line. You may have often seen the anecdote of the man who was asked how he had accomplished so much in his life. "My father taught me," was the reply, "when I had anything to do, to go and do it." There is the secret — the magic word "now"!

TAKE good care of disagreeable duties. Attend to these first. Never select the things that you want to do, and shirk upon others the things that you do not want to do. Wherever you are, choose the disagreeable things. You cannot grow in any other way so fast. You may be angry with some shiftless one who is willing to put on you work that he ought to do, and you may feel that there is injustice in it; but you cannot afford to be unfaithful because somebody else is.

Hygiene of the Eye.— When the eyes ache, close them for five minutes. When they burn, bathe them in water as hot as can be borne, with a dash of witch-hazel in it. After weeping, bathe them in rose-water, and lay a towel wet in rose-water over them for five minutes. When they are bloodshot, sleep more. When the whites are yellow and the pupils dull, look after your diet.

THE INFLUENCE OF ALCOHOLIC DRINKS UPON DIGESTION.

BY J. H. KELLOGG, M. D.

THE *American Journal of the Medical Sciences* contains, in the first four numbers of the volume for 1896, a very interesting report made by Drs. Chittenden and Mendel upon "The Influence of Alcohol and Alcoholic Drinks upon the Chemical Processes of Digestion." This report was prepared by request, and presented to the Committee of Fifty for the Investigation of the Liquor Problem, at a meeting held in New York, May 3, 1895.

Few persons in this country are better prepared to undertake such an investigation. Dr. Chittenden is professor of physiological chemistry in Yale University, and Dr. Mendel is instructor in physiological chemistry in the same institution. We are glad to note that the investigators have presented so full a statement of their work and of the methods employed. They very properly call attention to the fact that the study of the influence of alcohol or any other agent upon the chemical processes of the stomach alone cannot afford the necessary data upon which to base a proper conclusion respecting the actual influence of the agent investigated, upon digestion, for the reason that "an agent which by its mere presence in the stomach contents, for example, is without direct action on the ferment, or even without influence when absorbed into the blood in the process of secretion, may indirectly influence digestion by either retarding or accelerating absorption. Further, the mechanical movements of the gastro-intestinal tube, *i. e.*, peristalsis, have their influence upon digestion, the solution of the proteid foods especially being facilitated by the vigorous churning to which the contents of the stomach and intestines are subjected under normal circumstances. The onward movement of the contents of the alimentary tract is likewise governed by the proper contraction of the longitudinal and circular muscular fibers of the intestine; and as all these muscles, both of the stomach and the intestine, are controlled by the nervous system, it follows that digestion may be somewhat modified through this channel, indirectly, to be sure, but to quite an appreciable extent. Hence certain agents, acting primarily upon the nervous system, may indirectly in this manner have an influence upon digestion without showing any special action upon the digestive enzymes, or upon the process of secretion or absorption."

The investigation was conducted by means of artificial digestive experiments, in which the digestive fluids were allowed to act upon various food substances under definite and constant conditions. Without going into the details of this investigation, we will here summarize a few of the interesting facts elicited respecting the influence of alcohol in various forms upon proteolysis, or the digestion of albumin and other proteid substances.

In nineteen experiments made with absolute alcohol, it was found that the relative amount of digestive action was increased a fraction of one per cent.; in four of these cases the amount of alcohol present did not exceed one or two per cent. In every instance in which the amount of alcohol exceeded two per cent. there was a decided decrease in digestive activity. There was also a decrease in digestive action in six experiments in which the amount of alcohol was two per cent. or less; and in one instance three

per cent. of alcohol reduced the digestive activity 17.6 per cent., while six per cent. diminished the digestive action more than one third, or 34.6 per cent.

The fact that the digestive activity was increased a fraction of one per cent. in four instances might lead to the conclusion that in very small doses alcohol may increase digestive activity, were it not for the fact that in a larger number of cases the digestive action was diminished. In the four cases in which digestive action was increased, the average increase was a little less than .6 per cent., whereas, for the six experiments in which the amount of alcohol present varied from .5 to 2 per cent., the average percentage of decrease was 1.6. It is thus apparent that the average of the entire ten experiments would show a decided decrease of digestive activity, even when the amount of alcohol present was so small as two per cent. or less.

In twelve experiments made with pure rye whisky, costing one dollar a quart, which contained fifty to fifty-one per cent. of alcohol, the results were found to be practically the same. So small an amount of whisky as one per cent. diminished the digestive activity in three experiments, and to the amount of 4.1 per cent. in one case, 3.7 per cent. in another, and 10.3 per cent. in still another — an average of over six per cent. In three cases an increase of from .3 to .5 per cent. of the digestive activity was shown in the presence of whisky in the proportion of one to three per cent. In larger amounts the diminution of the digestive activity was very decided, amounting, in one case, to twenty-one per cent. with six per cent. of whisky.

We can hardly understand how, in the presence of such facts, the investigators can be justified in the conclusion drawn : "Hence whisky can be considered to impede the solvent action of the gastric juice only when taken immoderately and in intoxicating quantities." Experiments made with brandy, rum, and gin gave practically identical results, one per cent. of brandy producing in one experiment a diminution of 4.4 per cent. in digestive activity. Each of the experiments made with rum and gin showed decided diminution of digestive activity.

By these experiments it was also shown that fusel-oil, containing propyl, butyl, and amyl alcohols, produced the same effects as ethylic alcohol. In very small doses there appeared to be sometimes an increase in digestive activity, although in other experiments the digestive action was decidedly diminished, even when the fusel-oil was administered in so small a proportion as .25 per cent., the decrease in digestive activity in two instances amounting to 3.6 per cent.

It thus appears that if the experiments made with ethylic alcohol had proved it to be beneficial in its influence upon digestion, the same argument would hold good for fusel-oil. Hence, if alcohol is to be recommended as an aid to digestion, in small doses, consistency would suggest the propriety of choosing raw whisky and the cheaper grades of brandy rather than those liquors which have been thoroughly purged of their fusel oil by redistillation or by long keeping.

After careful study of the report of Drs. Chittenden and Mendel as to the influence of alcohol upon proteid digestion, we are compelled to infer that alcohol, in all the forms and doses in which it is commonly employed, is detrimental to the digestive processes, at least so far as it relates to the digestion of albumin. In this respect, the observations of Drs. Chittenden and Mendel agree with those of the writer made a number of years ago, in which it was found that so small an amount of alcohol as that contained in two ounces of whisky, added to an

ordinary test-meal, converted a case of decided hyperpepsia into a case of extreme apepsia. The following were the figures obtained: —

ORDINARY TEST BREAKFAST.	grms.
Total acidity	.240
Total chlorin	.328
Free HCl	.032
Combined chlorin	.268
Fixed chlorin	.098
Coefficient	.77

ORDINARY TEST BREAKFAST WITH TWO OZS BRANDY.	grms.
Total acidity	.016
Total chlorin	.206
Free HCl	.000
Combined chlorin	.032
Fixed chlorin	.172
Coefficient	.47

From the above it is evident that it is an error to suppose that the proper means of determining the effects of alcohol upon digestion is by experiments performed by artificial digestive mixtures outside the body. Digestion in the flask is a very different thing from digestion in the stomach. Digestion in the stomach involves not only the so-called chemical action of the gastric juice, but also the formation of gastric juice. An agent which so paralyzes the activity of the gastric glands as to prevent the formation of gastric juice, must necessarily be equally efficient in disturbing digestion as an agent which neutralizes or inhibits the action of the gastric juice after it has been formed. Professor Chittenden's experiments thoroughly show that alcohol most decidedly interferes with the paralytic or dissolving action of the gastric juice upon the food. My own experiments, the results of which are shown in the above table, and which I have many times confirmed by repeated observations upon different persons, show that alcohol prevents the formation of gastric juice in the stomach. Placing these two facts together, we find that alcohol, instead of being an aid to digestion, interferes with it in a most decided manner.

Dr. William Roberts concluded from the experiments which he made upon this subject, and which are referred to by the authors of the present investigation, that alcohol lessens the digestive activity. He nevertheless found an apology for its use in the very original hypothesis that the modern civilized man is suffering from excessive rather than diminished digestive activity, whereby, according to Dr. Roberts, he is exposed to a multitude of evils growing out of "an undue and dangerous acceleration of nutrition." Alcohol, according to Dr. Roberts, is valuable as a means of slowing down the dangerously active digestive process of the modern man.

The results recorded by J. W. Frazer and other investigators in this line agree entirely with my own observations and those of Dr. Roberts, and also with my interpretation of Dr. Chittenden's, and afford no evidence whatever that alcohol is in any way an aid to digestion, notwithstanding the enormous quantities of wine, beer, brandy, and other liquors which have been swallowed, both with and without the sanction of a physician's prescription, under the notion that the processes of digestion were thereby in some manner aided and facilitated.

As previously pointed out, the experiments made in relation to the effects of alcohol upon gastric digestion have proved most conclusively that alcohol, even in very small doses, diminishes the activity of proteolysis, or the digestion of proteids by pepsin. In these experiments, absolute alcohol, rye whisky, and preparations of fusel-oil, containing amyl and other alcohols, were employed.

(*To be continued.*)

How Drunkards are Made. — "I have lots of such customers," said the bartender of a saloon to a New York *Herald* reporter the other day, referring to two little girls of six and eight, thinly clad, who had come for a pint of beer. The reporter watched them, and they were scarcely outside the saloon door when the one that carried the tin pail lifted it to her lips and took a draft. Then her companion enjoyed a few swallows. A little farther on they entered a tenement-house hallway, and both again took a sip. "Girls and boys and women form half our trade," continued the bartender. "We call it family trade. It pays our expenses. Our profits come from the drinkers at the bar. But I tell you what — half the children who come here drink. That 's how drunkards are made. Their parents send them for beer. They see the old folks tipple, and begin to taste the beer themselves. Few of the children who come in here for beer or ale carry a full pint home, though I often give them nearly a quart. Sometimes two or three come in together; and if you 'll watch them, you 'll hear one begging the one who carries the pail for a sip. We must sell it, however, when their parents send for it. We are bound to do so. Business is business. We don't keep a temperance shop."

A Testimony from the Gallows. — A few months ago a young man in Omaha, while mad with drink, shot and killed a man who had been one of his best friends, without any apparent motive; and for this crime he recently suffered the extreme penalty of the law. Shortly before his execution he called for pen and paper, and wrote a most pathetic letter addressed to the young men of the city, especially those who had been his former associates. After recounting various experiences of his boyhood and young manhood by which he had been drawn under evil influences, he said: "But if anybody a year ago had told me that I would be in jail to-day with a death sentence upon me, I would have called him crazy. Yet here I am, with only a few more hours to live; and the cause of my being here is drink. If I had kept away from that vile stuff, I would be out in the world among you to-day. Young men, for God's sake keep away from drink. Keep out of bad company. Keep away from saloons and beer-gardens. Seek the society of respectable and manly young men, or stay at home with your mother."

Defining a Habitual Drunkard. — A petition has been presented to the English House of Lords praying that any person who has been twice convicted of drunkenness within two years shall be defined as a habitual drunkard, and that any licensed dealer serving or harboring him, after due notice, shall be liable to penalties and forfeiture of license.

Danger in its Mildness. — It being admitted that the use of tobacco is a great evil in the young, it follows as a self-evident proposition that any method which encourages its use must be more reprehensible than a method which discourages its use; and the cigarette above all other methods presents this encouragement to the use of tobacoo. In its mildness is concealed its very capacity for doing harm, for the reason that it *teaches the use of tobacco.* — *J. C. Mulhall, M. D.*

Friends of Temperance. — The late Archbishop of Canterbury is said never to have hesitated to express his views on the drink evil and its cure. He emphasized, as a necessary preliminary to all other reforms, that of temperance; "for," said he, "unless that is done, very little else can be lastingly done."

His successor, the Right Rev. Frederick Temple, is also a pronounced friend of, and a zealous worker in, the temperance reform, and is himself a total abstainer.

Queen Victoria's Views on Tobacco.— An English paper is authority for the following: "The queen has a strong objection to tobacco smoke, and will not allow smoking in any rooms used by her, or in any place where she is likely to go. Even the late prince consort forebore to smoke in her presence. On one occasion she happened to notice the tabooed perfume when in Buckingham Palace, and on making inquiry, discovered that the Prince of Wales (then in his minority) was the offender. Her majesty forthwith gave orders that the prince should be confined to his rooms for a month, and the order was rigorously carried out."

Increase of the Cigarette Habit.— Twenty years ago the cigarette habit existed, but was unusual; probably because each consumer was compelled to make his own cigarettes. But since the American manufacturer, with his advertising genius, has scattered them over the country, ready-made and very cheap, the habit has grown enormously. Nervous diseases and insanity are rapidly increasing in the American people, we are assured by our own neurologists. Our nation is already noted as furnishing proportionately more neurasthenics than any other.— *Quarterly Journal of Inebriety.*

A GOOD anecdote is told of the late Sir B. W. Richardson. He was traveling in England, and had come to a town of four thousand inhabitants in which was no public house, and the village doctor was nearly starving. While there, a young physician sought his advice as to taking up practise in the village. The good doctor, placing his hands on the young man's shoulders, said, "Take my advice, and don't. These wretched teetotalers not only shirk accidents, but when wounded, heal so fast that there is neither pleasure nor profit after the first dressing."

THE moderate drinkers of to-day are going to furnish us with the dipsomaniacs of to-morrow. Those who have inherited a predisposition to consumption should not hazard their lives by continually nursing and associating with the consumptive. This applies to all those who have inherited irritable, nervous systems, and thereby are predisposed to drink.— *Sidney A. Dunham, M. D.*

The Use of Tea a Source of Lead Poisoning.— One of the leading medical journals of the world calls attention to the fact that tea drinking may be a source of leod poisoning. In five cases of poisoning which were investigated, the tea used was found to contain lead. Of twenty-two different kinds of tea examined, seventeen contained lead.

THE *United States Tobacco Journal* declares that the bicycle has caused a total reduction of seven hundred million in the number of cigars consumed during the year.

THE W. C. T. U. of Indiana is trying to get a law prohibiting the manufacture and sale of cigarettes in that State.

IT has been claimed that tobacco is one of the prime causes of color blindness.— *Popular Science News.*

SAYS Dr. Lydston: "Wine, tobacco, and athletics mix but poorly."

EXERCISE PURIFIES THE BODY.*

BY J. H. KELLOGG, M. D.

WE all know what happens to a stagnant pool when there is an absence of exercise or movement in the water; it becomes covered with slime, and gives off offensive odors. But let a running stream be turned into the stagnant pool, and it carries away the slime and filth, and makes the water pure, and the pool soon becomes a pellucid lake instead of a stagnant frog-pond.

In the body which is not subjected to exercise there is the same accumulation of unwholesome things and the same giving out of unwholesome emanations as in the case of the stagnant pool. To illustrate: When a horse has been accustomed to plenty of exercise, and then travels or works until he sweats, the perspiration is clear and does not leave a stain. But if he has stood in the stable all winter, when he begins to work there is a thick, sticky gum mixed with the perspiration, which is quite difficult to curry out of his hair. Do you ask, What is that gummy substance that is mingled with the perspiration? It is matter which has been distilled from the horse,— a collection of impurities which have accumulated during the idleness of the animal; and before it was in the hair of the horse, it was in his body — in every gland, cell, and nerve-fiber.

The very same thing is true of the man of sedentary habits. If he sweats, this mucilaginous, sticky substance comes out upon the skin, because it is in all his tissues. Even in the brain there are poisonous substances which should have been carried off by muscular action; indeed, there is an accumulation of organic dirt in the whole body. That is the reason why, when a person has been sitting in his room for a long time, having taken no exercise, his face becomes sallow and his eyes yellow. Organic dirt has accumulated in the eye under the transparent membrane, and makes a dingy sclerotica. This dingy appearance of the sclerotica is a significant thing to the physician; it means not only that the eye is dingy, but that the muscles, nerves, glands, and everything connected with the digestive organs are affected; the whole body is clogged with impurities.

Now exercise is what is needed to rid the system of these impurities. Exercise causes the muscles to rub against each other, constituting a sort of inward currying; it jostles and stirs up everything in the body that is stagnant. If there is any part of the body that is not exercised, the same thing occurs there which happens when a stream becomes obstructed. Wherever there is a sheltered nook or an obstruction of any kind in the current, it creates a little eddy, which keeps whirling round and round, and retains in the vicinity of the obstruction the chips, sticks, and any débris which may have been thrown into the stream. Thus, if there is any part of the body which is not exercised, the effete matter and débris of the body accumulates there.

The right kind and amount of exercise taken every day makes the heart work; it makes the lungs work; it makes the whole body work so vigorously that it fairly steams with perspiration, and the impurities within are forced through every part of the body into the various excretory channels. The body should be stirred up in this way every day, so that there will

*From a lecture delivered before the patients of the Battle Creek Sanitarium.

be no chance for impurities to collect, as in a stream rushing down a mountainside there is no chance for stagnation.

The same thing is as true of the dog as of the horse: When he is young and active, his perspiration is pure and comparatively free from offensive odors; so that he can be tolerated in the house, and even taken up into the lap. But a dog which has become old and inactive cannot be allowed in the house. One dog, by reason of lack of exercise, carries a mass of impurities within its body; while the other keeps his skin and breath pure by his activity. Exercise is just as essential to the attainment of this end in human beings as in the lower animals.

Do you ask how it is that exercise secures this result — how it accomplishes the cleansing of the body, the blood, the muscles, and the tissues? The heart, beating from sixty to one hundred and fifty times a minute, sends a current of blood through the brain, muscles, and tissues of the body, washing out and purifying them; and this purification of the body is brought about not only by the increased activity of the blood produced by exercise, but by increased lung action, by which an abundance of oxygen is brought into the body. Dr. Brooks has shown by experiments that a person breathes in seven times as much oxygen when running as when lying on the back, and this sevenfold quantity of oxygen burns up the impurities of the system. A great fire in a city has one good effect — it burns up accumulated impurities. Now that is what a "fever," as it is called, does when it attacks the human body; it is like a fire, because it sweeps away the impurities of the body. But when one keeps his system clean and pure, there is nothing there for a fever to feed on; hence he is seldom attacked by it.

The person whose system is filled with poisons is apt to be in a depressed state of mind; but when exercise has brought in sufficient oxygen to burn up all this waste matter, the brain is cleared, and the spirits brighten.

The frog is a thorough pessimist. All his life he does nothing but sit and groan and croak; but the birds which sing in the tree-tops are always active, and will easily keep up with the fastest railroad train, singing as they fly. If people would imitate the birds rather than the frogs, they would soon find their lugubrious thoughts vanishing, and good cheer taking their place. Indeed, there is everything to encourage people to persevere in habits of exercise and industry.

THE IMPORTANCE OF PERFECT POISE.

One very important artistic reason for raising the chest is found in the improved hang of draperies and the increased dramatic expression given to the entire dress. While the chest remains depressed and inactive, the lines of the figure suggest decreased vitality, and the dress partakes of the general effect. The moment, however, that the chest becomes firm and active, leading as it were all the other vital organs, draperies depended from the shoulder and bust, and lines radiating downward, take an individuality and grace that are surprising to one who has not investigated the law of cause and effect in physical development and dress.

I dwell upon this point because all my experience emphasizes the necessity of securing the poise of the body, and a vital chest is the starting-point in physical culture and the art of personal adornment.

No matter how one may stand naturally, correct poise can be learned. By re-

FIG. 1.

peated contractions of the muscles one can acquire a posture that at first seems impossible. Any change for the better demands constant thought and attention. In the matter of chest-raising and poise of the body, concentration upon the object to be attained is imperative. I have known people who would for a few moments daily (at night, perhaps, after removing heavy clothing that had depressed the chest and waist muscles all day) practise chest-raising exercises, and complain at the end of three or six months that they could never learn the art or acquire the necessary muscular strength for perfect poise of the body, simply because the work of a few moments daily did not counteract the evil of hours of false poise and dress.

Perfect poise of the body can be acquired and established as a permanent habit in six months, sometimes in less time, if the body be given absolute freedom, relieved from restriction of the muscles, and the effort kept up hour by hour while at other tasks.

I remember some of my own difficulties in establishing a correct poise. For several years at a time, whatever I might be doing, raising my chest would continually suggest itself in a vague way without really being a matter of active consciousness; then I would suddenly become absorbed in my work, and down would go my chest from the force of old habit. From this point full consciousness would return after a time, with a renewed determination to keep my chest well up without a break. Thus by degrees the lapses became less and less frequent, and the habit was established which to-day is so much a part of my

FIG. 2.

vital existence that to stand or sit with depressed chest would cost me an effort

quite equal to any I ever made to raise the chest and bring the vital organs into normal position.

It is not alone increased beauty of carriage, but actual increase of health that is gained with increased radiation and expression of body and draperies as well. No matter how beautiful one's dress, from the point of fabric, color, and workmanship, if the body lacks vitality and magnetic radiation, the dress will lack expression; because one must be more than a tailor's dummy to bring out the best points of even the most beautiful and well-considered gown. It is the woman who gives expression to the dress, not the dress that gives expression to the woman.

We say of a dress, it is becoming or unbecoming when the color suits eyes, hair, complexion, and brings out one's best tints, but we have yet to learn the unity that may be established between a woman and her clothes when the woman herself is properly developed, so that different parts of the physical system are free and graceful, and the lines of her dress adapted to easy and natural articulation of the different parts.

When one has acquired a correct poise, the body suggests strength, power, self-command, grace, and culture. Each muscle and group of muscles obeys the sovereign will in a well-trained body.

FIG. 3.

FIG. 4.

I do not wish to be understood as embracing entire physical education in the one acquirement of perfect bodily poise, but I do assert that no exercise of any other part can be effectively acquired until perfect poise has been gained. The chest and vital parts are the central points around which all the other members of the body group themselves. Once we gain perfect control of the centers of life, the chest and vital organs contained in the thoracic and abdominal cavities, all

of which are affected by and assist in the work of perfect poise, we can easily learn to direct the life forces from the centers into the branches, and relate all parts harmoniously. To establish a law of equilibrium and harmony we must first concede and encourage the authority and supremacy of the natural rules of the body.

With perfect poise, deep, full breathing becomes possible, and the energy of the viscera is quickened; more and better blood is manufactured, the processes of digestion are stimulated, and the balance between the supply and waste in bodily power is regulated and preserved because all of the vital parts are in position to perform their functions properly. When the vital organs are lowered, and crowded upon each other, the vital tone must be lowered of necessity; indeed, I am certain that many of the most common and annoying ailments of the body can be relieved and often entirely cured by acquiring perfect bodily poise.

I have already stated that I have found concentrating the mind upon raising the chest to be the best means of acquiring poise; I will, however, give the technical exercise generally accepted by all good teachers of physical development for overcoming the depressed position of the chest, and acquiring the perfectly correct position of the head, neck, torso, legs, and feet: —

Placing the heels together, with the toes at a slightly outward angle (Fig. 1,) bring the body forward until the weight falls directly upon the broadest part of the balls of the feet (Fig. 2), thus calling for conscious muscular effort on the part of the legs to preserve the body from pitching forward. Then with the arms falling easily at the sides, concentrate the mind upon raising the very center of the chest as far as possible toward the chin without throwing either the head or shoulders backward; thus the head and neck will be brought into position (Fig. 3). Lower and raise the chest in this way several times until the muscles over the vital organs of the abdominal cavity and those controlling the chest feel free and flexible; then resolutely hold the chest in that position, not by the aid of the breath, as some attempt to do in the beginning, but by the muscles alone, and rise to upright position (Fig. 4).

Very likely the muscles of the legs and the back and the chest will ache at first, but there is no reason for diminution of enthusiasm in the exercise; for this sign is hopeful, and proves that muscles that have hitherto remained inactive and flaccid are responding to intelligent direction. The same kind of ache assails any muscle of the body when it is set to work for the first time. The ache only proves the inactivity of the muscle, and is not a sign that harm is being done, as some seem to suppose. — *Jenness Miller Monthly.*

SWIMMING IN THE GERMAN ARMY.

FROM the time of Frederick the Great, drill has always been the strong point of the Prussian army; and since the union of the German-speaking states, the armies of the various kingdoms and principalities which form the empire now ruled by William II have advanced by rapid strides, until it is beyond doubt that for perfection of drill they are unsurpassed by any troops in the world. The work which this state of perfection entails on the individual soldier is very great. Every private has his copiously illustrated "Drill Book," teaching him the theory of all steps and exercises, the practise of which he acquires under tuition

on the exercise place and in the gymnasium for several hours each morning.

One of the most useful, as it certainly is one of the most interesting, of all the exercises in the German army is the swimming and diving drill as it is practised at the military swimming-baths during the summer months. It is compulsory only on the pioneers, but privates of all arms are encouraged to practise it by small money prizes and prospective promotion. The diving from a considerable height is best worth watching. The men taking part in it are clothed in uniforms of the oldest and least valuable description, and accoutered with "dummy" kits of precisely similar size and weight to their ordinary equipments. They are furnished with model guns and bayonets of wood, the points of the latter terminating, as may be seen, in wooden knobs. Under the direction of the military swimming-master, the men in rotation mount the steps leading to the diving platform, and at the word of command each takes "a header down below." After a more or less prolonged interval, the pioneer private "bobs up serenely;" and generally (contrary to the expectation of the uninitiated stranger), without having lost his helmet or rifle, and without having disarranged his accouterments, strikes out across the bath for the landing-stage. The pioneers are also instructed in the towing of piles, stakes, balks of timber, and trunks of trees into position for bridge construction.— *The Gymnasium* (*London, England*).

The Lady Cyclist.—The following excerpt from the *Queen* is instructive: "We are glad to see that Dr. Schofield attacks the tight corset as being dangerous for cycling, in this month's *Humanitarian*. 'It is found,' he says, 'if a lady rides a mile at top speed in fairly tight corsets, and again in loose gymnastic dress, that in the former she will breathe nearly three times as fast, while her heart will beat twenty beats a minute more; the increased strain imposed by corsets, therefore, obviously falls mainly upon the lungs. This is no small danger, and for ladies to cycle with 19-inch waists is not a credit to their common sense.'"

We should think not, and yet many women will endanger their lives before they will even acknowledge to themselves that their stays are too tight. It is an extraordinary craze, but bicycling is doing much to kill it, for there are limits even to a woman's endurance when a taste of freedom begins to work against vanity and convention. The bicycle will be a potent factor in dress reform. In one case we know of, the rider found after a few months' practise that her ordinary stays were unbearable, owing to the development of lungs and waist muscles, and she had to get a pair two inches larger. This was a case where tight stays had never been worn. What would be the expansion of those who deliberately lace tightly?

Let us hope that the reaction against this gigantic folly is not far distant. An important point noted by Dr. Schofield is that bicycling is a most valuable counterpoise to brain strain. So many women are now taking to intellectual pursuits — either from choice or necessity — that something of the sort was absolutely needed to preserve the balance of mind and body. Dr. Schofield thinks that 'every rational exercise for women is a crying necessity in these days when their much-despised frontal lobes are undergoing a forcing process never before attempted.' He is one of those who thinks that lawn tennis was invented just in time to save large numbers of women from de-

struction, and that there never was a more opportune innovation than cycling in women's athletics."— *The Gymnasium.*

Deafness among School Children. — The fact that myopia is frequent among school children is well known. It is not so well known that impaired hearing is also frequently met with. The children thus affected are often accused of being lazy and inattentive, when in reality their ears are at fault. Helot shows that these cases are quite common, are easily recognized, are generally curable, and when cured, a large number of children are transformed, so to speak, from both a physical and a moral standpoint. According to Weil, of Stuttgart, the proportion of school children with impaired hearing is thirty-five per cent.; according to Moure, of Bordeaux, seventeen per cent. Helot agrees with Gele and other aurists that the proportion is always twenty-five per cent., or one fourth. All the children in a class should be carefully examined, and these semi-deaf pupils will always be found among the "poor scholars." The cause of infirmity is to be sought for, — naso-pharyngeal catarrh following measles, scarlatina, whooping-cough, adenoid vegetations, hypertrophied tonsils, etc., — and normal conditions are to be restored by appropriate treatment.

Instructive Walks. — In some of the German schools, perhaps the majority, the teachers are in the habit of taking their pupils upon instructive walks for the purpose of introducing them, in a natural manner, into almost every branch of knowledge. Cannot material be found everywhere for teaching from nature, botany, zoology, geology, and the elements of geography? Are not the works of man represented by the streets and buildings, the shops and factories? Does not the government of every town contain the elements of general government? And may not the local historical associations serve to introduce the child into the study of universal history? — *Dr. J. M. Rice.*

THE principal of one of the large city schools, a man of superb physique, as well as fine intellectual endowments, gives this sensible advice to the young girls under his care: —

"Study hard while you do study. Put your whole mind into your work, and don't dally. Begin your studying early in the evening, but stop before nine o'clock. Take a little recreation before retiring, to change the current of thought, and to rest your head. Be in bed before ten o'clock. The sleep thus obtained before midnight is the rest which most recuperates the system, giving brightness to the eye and a glow to the cheek. Take care of your health. That is first and foremost. If you need to do more studying, rise at six in the morning."

G. STANLEY HALL, M. D., believes that the greatest danger to the health involved in our public school system lies in the constant nervous strain brought to bear upon the pupils. "What shall it profit a child," he says, "if it gain the whole world of knowledge, and lose its own health?" He pleads that the child shall not be compelled to "sit still" in school, and admonishes teachers to "possess their nerves in patience" if the little ones do "fidget" a little, concluding, "We all live for life. There is nothing so good as being alive."

COMPANIONSHIP IN READING.

BY MRS. S. M. I. HENRY.

THERE is a tendency to thrust the children of the home off into a little world by themselves, with all their belongings; but this means danger. The child must have constant teaching. He cannot teach himself, and he should not be taught by other children. His father and mother should be his best teachers. His first lesson should be that of self-protection and self-control. As a basis of all teaching, there must be perfect confidence between parent and child. He must feel the warmth of their sympathy, even for his ignorance. Ignorance is not innocence. Purity is not the result of ignorance or innocence, but of knowledge of good and evil, and the intelligent choice of the good. It is our business to create purity in our children. To do this we must develop the innocence of ignorance into the knowledge and love of the truth.

In home life there should prevail a co-operative system, in which parent and child should share everything together; then it would be practically impossible for a bad book to do its evil work even if thrust into a child's hand. If such a thing is found to have happened, the book should not be arbitrarily taken away, but it should be made the topic of a lesson by which the child will learn to know it as it is. If he can be taught to see the evil in the book as evil, and shown how the reading of it will produce evil thinking, and how evil thinking corrupts the whole course of nature and defeats every true and pure ambition, there will be no difficulty in helping him to decide as to what he will do with it, especially if the taste for the vicious has never yet been cultivated.

In these days of opportunity — of mother's clubs, mother's magazines, child-culture circles, child-study congresses — every mother should become qualified to give her children the information which will lead to self-protection against all forms of moral corruption, especially that which is so tangible as printed corruption. She should read beforehand, or carefully examine any book or paper the character of which she does not already know, before it is passed to her children. The children should not be left to read by themselves. It would be interesting to one who has never investigated along this line to notice how different are the ideas which the same word will convey to the adult and to the child. The images created upon the brain of the young reader are often so entirely foreign to those which were in the mind of the author that he would never recognize them. Reading produces a desire to see and investigate. If the child reads alone, he will think alone, investigate alone; and quite likely, as so many have done, find himself by and by in the awful loneliness of sin. If he reads with you, he will think aloud to you, discuss points, ask you questions, and draw out your best thinking powers. Knowing what is going on in his brain, you will be able to meet the danger and teach him how to overcome it. You can meet doubt with evidence which will stimulate faith and forestall the doubting world which he must meet later on. He will expect you to share his investigations, and will bring the results of his own efforts to you. You will then be able to keep the "whip-hand" of the evil that is in his nature, and teach him how to develop it out of himself, and to cultivate that which is good.

It is useless to attempt to keep the

alert, spirited schoolboy or girl to any special line of what is usually called reading, by the means employed in the average home; the only safety is in tactics altogether new from those that have been too often practised.

We cannot afford to leave the child to experiment in literature, for one unclean sentence, met alone, may be like the first glass of strong drink, leading to many more, and finally to ruin.

A pure moral environment is the right of every child. "But," said one mother recently, "how can that be secured when just the moment the child goes outside of your own door, he is surrounded by everything that is unholy?" This danger, and the imperative present need, is the inspiration of this whole discussion. To make the child capable of protecting his spiritual sight from that which will injure and destroy, just as nature has provided for the physical organ of vision, is the one thing to be desired. Everything depends on how one uses the eye in a shower of cinders. The moral danger is not so much in the reading-matter itself, as in the spirit in which it is taken in, and the use made of it by the thinking machine.

The home should always be the best educator; but it has failed to appreciate its opportunity, and in these days of awakening, it finds itself overloaded with responsibilities. Its work must be done quickly, for we cannot always keep our children in it; they are liable to be thrown upon their own resources at any time, to stand or fall by that which we have taught them in the use of this world. It is scarcely possible for a boy or girl to walk the streets without being attacked by that which is unholy. Those who have the care of them must know the evil and build against it, strong and high; or else suffer irreparable loss.

I knew a man who seemed to have solved this whole question of reading-matter for his boy. He was able to control everything which came in the form of books and magazines; but the daily newspaper, being a commercial and political necessity, and containing, as it does, such a mixture of the best and often the worst, was to him a source of great anxiety, as his boy grew, until he resolved upon a course which is to be commended for its wisdom and tact. He trained his son to read the paper to him in the evenings; first going over all the headings; and if there was anything in these headings which suggested danger, that was the thing which he had the boy read aloud; and the father was able to make his own commentary on the text. He grew up under this training with a well-developed power of discrimination between that which was poison and that which was food in literature, and with a love for the one and a loathing for the other.

The proverb that "stolen waters are sweet" is too terribly true; so that the greatest danger lies in the cultivation of secretiveness, which is the result of a lack of confidence. If the children must walk among things forbidden by the law of their well-being, let them go hand in hand with the wise, sympathetic father and mother, who should be the teachers if possible. The great daily newspaper cannot be avoided; let the child learn how to use it. Let it be like a telescope in an observatory, that observatory the hearthstone in the home, the father or mother the director in its use. Through its study may come a knowledge of the world as it is in such a way that a personal examination of its evils will not be necessary in order to find that they are evils, or the handling of its pitch to know that it will blacken.

I know a woman who had an experience with her son which is at least suggestive. His reading and studying had been of a nature to bring the saloon into prominence.

He was of an inquisitive nature, always if possible verifying by experiment whatever came to him in his reading. One day he said to his mother, "I want to see the inside of a saloon for myself; I want to see if it is as bad as it is pictured." For a moment she was afraid, but acting upon the principle by which she had been governed in all her relations to this child, and which had made it possible for him to come to her with such a wish, she said, "Very well, you shall see what the saloon is like; we will study it together." She was engaged in a species of reform work which took her among the victims of the liquor traffic, and had been invited by the secretary of the Citizen's League in Chicago, the late Andrew Paxton, to go with him on a slum tour, that she might better understand the subject with which she was dealing in her work. Being unable to go, she decided to accept Mr. Paxton's invitation for her son. She therefore wrote to him, giving the circumstances, and stating that she would send her son to him with a letter of introduction. She gave Mr. Paxton to understand that she wished her son to see the lowest haunts of men; she would have him made sick by the sight of his eyes. The tour was accordingly made on a Sunday night. The boy did not return until two o'clock in the morning. His mother was waiting for him; she met him at the door. As she kissed him, he said, "O mama, do not ask me a word now. I will tell you sometime, but not to-night." The story came out later, and she found that Mr. Paxton had faithfully executed his commission. The boy had seen the refuse of manhood, and was not attracted but overwhelmed by it; and to this day he often thanks his mother for that lesson.

Many people have the idea that children's books and papers should deal with entirely different characters and subjects from those which are enjoyed by their parents and adult friends; that they must be of a nature to amuse and to stimulate the imagination. Nothing could be more foreign to the truth. In the first place the child's imagination is usually active enough. It needs to be trained and given tone, instead of stimulated. He should never read simply for amusement. He will relish fact more keenly than fiction. There is nothing in him, naturally, which would lead him to prefer a fairy story to history, or Mother Goose jingles to the sweet musical rhymes which convey sound Scriptural truth; so that the vocabulary is within his range. It is always a disappointment to the normal child when he must be told that things of which he has read never happened. Fiction, fairy and folk-lore, all have their place as a part of the history of the mental development in the world, but are for the adult rather than the child. When the time comes that one is necessarily wearied with heavy mental labor, it is refreshing and restful to take recreation in something of this sort.

The mental processes through which the child must pass in first trying to assimilate, and, later on, to reject the marvelous and fictitious in its reading, does not conduce to strength and stability of character. Facts carefully read and digested can be built into the foundation of his thought to remain forever, while fiction can be of no use except as a lighter vehicle for truth.

There is no reason in the world why the Bible should not be made the most attractive and interesting of all books to children. Most of us remember how in our own childhood we delighted in the few of its more familiar and easier told stories. There is in the Bible a rich and almost inexhaustible mine for child as well as adult. This I know from my own

personal knowledge. Up to my nineteenth year the Bible was almost my only book. My father had his own ideas of education; and as long as he lived, followed them out with me. The Bible was *the* text-book. By its style and its truth all other books were judged, and I have never lost the keen appreciation of those truths which came to me in those early days through the arrangement of topical study which he devised. Everything new which came within the range of my observation was at once questioned by us as to whether the Bible had anything to say about it. If it were a dress, a ribbon, a pair of shoes, or any article of clothing or household furniture, any toy or book or association, such was the habit formed in those days that all through my life the first thought with anything new has been, "Does the Bible refer to this in any way?" "What would God's word say about this?" and the answers to these questions which have come through investigation have been of the most absorbing interest, and the most sure safeguards.

I can remember the time when I was a little child sitting upon a low stool at my father's side, turning with absorbing interest from Genesis on toward Revelation, to look up some little word which had come to be a Bible topic, and though simple in itself, led out into the deeps of truth. And this was an interest that never failed or grew old. Of course the fact that my father was my constant companion in this study, and that his sympathetic presence was so inspiring, will account for this continuous interest in the mind of a mere child; and it also serves to enforce the need of which I have spoken in this paper, that the parent and child should be companions in this most important part of education,—the ordinary reading of books and papers.

THE HOME ATMOSPHERE.

THERE is complaint of a prevalent badness variously manifested, as corruption in politics, overreaching in business, adulteration of every kind of merchandise, and in very frequent cases of the theft known as defaulting.

Suppose that, instead of mourning over this state of things, we search out a cause of it, step by step. Much of the demoralization we deplore comes from greed of wealth. (One step.) Greed of wealth is due largely to the respect and social position accorded to wealth. (Two steps.) That respect and social position are accorded to wealth is owing to the prevailing false ideas of values. (Three steps.) Whence come these false ideas of values? When and where and how do men and women get them?—They get them in childhood, in homes—and homes are what men and women make them. (Four steps.) What, in the average family, does a child find most prominent? Where is the emphasis placed? What do mothers and aunties talk most about? By what standards do they judge? In many families the child would get false ideas of the values of time and money. It would learn that time spent in fancy sewing and cooking is considered well spent; while time given to reading, walking, or to philanthropic work, is considered as time turned aside from its legitimate uses. It would find that "cannot afford" means cannot afford after buying everything self can need or desire.

The child does not, as a general thing, hear the same anxiety expressed with regard to the truth of an idea as to the stylishness of an outfit, nor does it hear

the wonders of scientific discovery spoken of as enthusiastically as are the wonders of a display of millinery. In the common conversation it is likely to hear eager discussions over fashion-plates; a great deal about dress, style, appearance; a great deal of gossip and of unfriendly criticism. It will see far greater leniency shown to a neglect of the Golden Rule than to a neglect of the observances of society; far greater leniency shown to a gossipy defamation of character than to the wearing of a dress or gloves different from what society prescribes for the occasion. It will observe that the thoughts of the family are centered chiefly, perhaps wholly, upon its own interests. In regard to outward distinctions, the child will see that persons placed by social position above its own family are, on account of that position, held in respect; that their example is copied; their notice desired, and courted, and boasted of; their opinions quoted. This would be particularly noticeable in cases of relatives who had attained to such position, while relatives in correspondingly inferior position would be regarded with indifference. Is its own family in genteel circumstances, the child learns to look down upon "working people," and to consider labor as in a measure disgraceful.

Beginning at the top of the social scale and proceeding downward, we see that a child is likely to learn, in the family, that appearing is more than being; that money-worth is more than character-worth; that wealth and social position are the objects chiefly to be striven for, and that success in life means success in gaining these. The emphasis is put in the wrong place; in a great many wrong places — as if in reading an important paragraph the small words were emphasized — the *of's* and *and's* and *the's* and *to's*. What, then, can we expect other than that the child's mature life will be based on these unworthy ideas of values, which are causing blight and ruin, and which are inbreathed, as we may say, from the home atmosphere?

The home atmosphere is what the young and forming character feeds upon and grows from. Every expression of opinion, every chance remark upon people, every subject talked about, every motive appealed to — refinement or its opposite as expressed in speech and manner — every one of these, as well as each word, look, and tone, does its work on character.

This is a matter affecting home interests, social interests, business interests, and, in the way of "politics," the welfare and reputation of the nation. Thus a grave responsibility is placed upon mothers, fathers, and every person whose influence is felt in the family. — *Abby Morton Diaz.*

GOOD MOTHERS WANTED.

In hinting that there is anything wrong about motherhood as it now exists, I am conscious that I go counter to one of the strongest opinions of the human race. It is claimed by the majority that motherhood is an instinct, and that, as such, it is sufficient to its purpose, and needs no education; but civilized motherhood is much more than an instinct, and needs the highest education. It is necessary for the mother to understand humanity culture, and also to know that the main duties of motherhood come before the child is born.

Our idea of motherhood is largely the care of children in sickness, the waiting upon little sufferers; but when mothers understand their business, children will not be little sufferers. Scientists calmly claim it as a necessity that four children

should be born in every family, if the human race is not to diminish in numbers, because fifty per cent. of all children die before they are five years old. Of what? — Mainly of preventable diseases. Who should prevent them? — Their mothers. But do we have any convocations of mothers to consider measles? Mothers take it for granted that children must be sick, and devote their strength to nursing them. All that one half of the race can do in its great business of child-rearing is to lose half our children!

We are continually told of the superior mothers of great men. If the superiority of the few great men is due to the greatness of their mothers, to what is the inferiority of the many small men due? If women are responsible for the status of the race, they are responsible for the gambling, drinking, stealing men, as well as for Washington and Lincoln. Motherhood needs to be educated. But who reads books about the care of children? — The schoolma'ams.

Again: in thousands of years ought not mothers to have learned the best way to dress a baby? Yet the average mother still clothes her baby in a long dress, in spite of instinct, and in spite of the fact that the baby trips upon it. The "instinct" of some mothers has taught them to wind up and swathe infants. Other mothers do not do it. Which is right? Some mothers tie up a new baby in a flannel bandage, and then walk the floor with the crying child, and say that all children have to have the colic for three months. Any of us would have the colic under such circumstances.

After all these years, would you not suppose that some woman might have thought out the best system of education for children? Men have thought it out, not women—Rousseau, Froebel, Pestalozzi. We have been too much wrapped up in our own children to care about children in the abstract.

Women enter upon this greatest function of life without one day's preparation, and their mothers let them, because they do not recognize it as a business. We do not let a man practise as a doctor or a druggist, or anything else that involves issues of life and death, without training and certificates; but the life and death of the whole human race are placed in the hands of utterly untrained young girls. I am not disparaging the noble devotion of our present mothers. I know how they struggle and toil. But when that tremendous force of mother-love is made intelligent, fifty per cent. of our children will not die before they are five years old, and those that grow up will be better men and women. A woman will no longer be attached solely to one little group, but will also have an interest in the community. She will not neglect her own on that account, but she will be better to them, stronger and of more worth as a mother. — *Charlotte Perkins Stetson, in New York Dispatch.*

Mrs. Nansen's Carrier-Pigeon.— One day a wonderful bird tapped at the window of Mrs. Nansen's home at Christiania. Instantly the window was opened, and the wife of the famous arctic explorer covered the little messenger with caresses.

The carrier-pigeon had been away from the cottage thirty months, but it had not forgotten the way home. It brought a note from Dr. Nansen stating that all was going well with him and his expedition in the polar regions.

Nansen had fastened the message to the carrier-pigeon, and turned the bird loose. The frail courier darted out into the

frosty air, and flew like an arrow over a thousand miles of frozen waste, then over another thousand miles of ocean and plains and forests, and one morning entered the window of its waiting mistress, and delivered the message for which she had been waiting so anxiously.

We boast of human pluck, sagacity, and endurance, but this loving little carrier-pigeon, in its homeward flight after an absence of thirty months, accomplished a feat so wonderful that we can only give ourselves up to amazement and admiration. Mrs. Nansen's pigeon is one of the wonders of the world.

The Mission of Beauty.—Drummond says: "Every day we should either look at a beautiful picture, hear beautiful music, or read a beautiful poem." It is indeed needful that we cultivate our love of the beautiful; these things uplift our lives because of their relation to the great Source of all beauty and perfection. Frances Power Cobbe says: "Many enter the Temple through the great gate called Beautiful." There are those who constantly listen for the Master's voice, and are ever quick to catch its echoes. But what of those whose spirits are not attuned to the heavenly harmony! Even the prodigal, oftener than we think, recognizes a note here and there of his Father's voice above the discord of his life, and is led to return home. So it is with all that hints of beauty, of perfection; it is an aid to pure and noble thought, to upright living.

The rich man gathers plants of rare blossoms and foliage to beautify his home, and the work of the world's masters in art is laid under tribute to adorn his walls. But who shall say that the poor man's heart is not as often uplifted to God as he watches the wondrous unfolding of the plants in his tiny garden plot, or the budding of the one geranium in his window? Not only then to make our surroundings harmonious and beautiful, but as an educator of heart and mind, as an aid to religious thought and life, let us gather these things about us: Good books with their high ideals, pictures with their lessons of beauty and purity, blossoming plants with their daily meed of gratitude to the Giver of all life. We may not be able to purchase many books, nor any costly pictures; but thanks to the growing love of art in the world, there never was a time when reproductions of the best works of the best masters were so plentiful and so cheap as to-day. Let us then spare a little time and effort in trying to make our daily surroundings harmonious, and in giving to ourselves at least one beautiful thing upon which our tired eyes may always rest gratefully,—a hint of that heavenly peace which "passeth all understanding." In the words of a late writer, "Every impulse given toward the beautiful and true will make all life sweeter and richer, and more fitted to enjoy the glories of that land where all beauty is eternal."

THAT a large moral responsibility lies with parents admits of no doubt, but I am opposed to such a theory as that advanced by the New York clergyman, which confines such a responsibility to the parents of daughters. Our boys need just as careful moral training as do our girls. If we teach our daughters to protect their womanhood, we should likewise teach our sons to respect it. And here the duty of the father is presented. It is the exception, rather than the rule, that we find a proper spirit of confidence existing between father and son. The average boy grows up with absolutely no idea of the dangers which he must encounter in his life. The father argues that to speak of moral questions to his son is unwise, since there is the danger

of unnecessarily turning his thoughts into directions which he believes are best ignored. This is all very well in theory, but it hardly holds good in practise. The boy goes out into the world, and learns from others what he should have learned from his father. A boy cannot be expected to know the dangers he is bound to confront, unless their nature is explained to him. It would be far better if our fathers would put aside what is, after all, nothing but mock modesty, and talk frankly with their sons of those phases of their moral life which sooner or later they must learn. The great trouble is that fathers regard themselves too much as fathers to their sons. If they would let their sons regard them more as companions, it would be far better, and confidences would come more naturally. — *Ladies' Home Journal.*

Courteous Children.— There is no more charming sight than a well-behaved, courteous child. We all desire that the children for whom we are responsible, or in whom we are interested, shall be well-bred. Do we not sometimes forget that it is our fault if they are not, and that it is our duty to make them so?

It is not true that the mind of a child is like a blank sheet of paper, and yet it may be a better simile than it appears at first sight. For while it seems a blank surface on which we can easily make any desired impression, it is really heavily "water-marked" with inherited tendencies and individual idiosyncrasies which are apt to come out and interfere materially with the fair characters we are desirous to imprint there.— *Sel.*

Furniture for Children.— Every house that has one or more little children should if possible own one of the low tables and several of the small, low chairs that are used in the kindergarten. If there is no regular nursery, the tables may be kept in one corner of the living-room, as they provide a most convenient place to rest their books when reading, and give great satisfaction in many ways. Another piece of furniture that helps the children to keep an orderly nursery is a window-seat; that is, a large, long box with a hinged cover where their toys may be placed when they are through using them. In one nursery, where there are three children, each one has her own special treasure-chest placed under a window and her own low shelf for books.— *Sel.*

The Children's Trunk.— When the older members of the family are packing up for a journey or an outing, the smaller ones are apt to feel aggrieved that there is not room for all their own special belongings, and to think that their rights ought also to be considered in the matter. And so they should. Children have many treasures to which they attach immense importance, and without some of which they are really lonely upon leaving home, though the outing be made as enjoyable as possible. It has been suggested that on such a trip the wee ones should have a trunk all by themselves,— a nursery trunk, to hold books, dolls, and toys *ad infinitum.* It should have a flat top, which will answer admirably for a table upon which the children may draw, cut, or paste to their hearts' content. They should be permitted to make their own selection as to what articles are to go in their trunk, though perhaps all those selected may not be taken, as the capacity of the trunk will naturally have a limit. It will impart an added pleasure to allow the little folks to help pack their own special baggage, and also to unpack their treasures upon reaching their destination, and it will also help to inculcate a love for order.

HOME-MAKING AND HOME-MAKERS.

To the true man or woman there can be nothing more agreeable on earth than the business of home-making; and all who are not home-makers miss the best part of their mission in life. Whoever makes a home, in the best sense of the word, is a real benefactor to the race; for every true home is the abode of joy, peace, happiness, and security to those that share in it, and exert an influence that is incalculable for the amelioration of the whole human family. Many a prodigal has been led by the thought of home, and the makers of his own particular home, to repent of his sins and to change his course in life; and many an unfortunate one has been saved in the evil hour from suicide, or worse, by the tender recollections of home, a fond mother's prayers, an indulgent father's counsels, or a sister's or a brother's tenderness.

Yes, whoever helps to make a true home confers a benefit on mankind that no man can fully estimate. Indeed, the influence of the true home for good is absolutely incalculable, and reaches many even that never enter its inner circle. Simply to get a glimpse of it is to receive an impulse toward better things, to obtain a more exalted view of life, and to feel an access of faith in God and confidence in our fellow men. It is like a vision of the glories of the New Jerusalem and the everlasting habitations, and no one can be wholly bad who has seen such things.

In most cases a man or a woman is what home influences have made him or her; and the person who has not enjoyed a good home in childhood is always at a disadvantage, and is indeed greatly to be pitied for having been deprived of so much of life's sweetness and brightness, and knowing nothing by actual experience, of a mother's gentle sympathy and a father's loving care, or of the innocent pleasures which kind parents know how to provide in the home circle, and which, far beyond anything else, make childhood the happiest period of life.

There are many things to be considered in genuine home-making, but the great essential — that without which everything else amounts to nothing — is unselfish affection in the home-makers. Selfishness and unkindness are the chief home destroyers, and must be sleeplessly guarded against by those who wish to make and keep happy homes; for where either holds sway, true home life is an impossibility. Love and kindness constitute the tie that joins the members of the home circle in a joyous and harmonious union of souls; and these all true home-makers will diligently cultivate. It is warm-heartedness, first, last, and all the time, that the successful home-maker needs. — *Sel.*

A MESSAGE TO GIRLS.

THAT strong and manly writer of noble English, John Ruskin, has had much to say to young women, and he has always spoken with great wisdom. Much of his thought for them is packed into the following bit of advice: —

"See that no day passes in which you do not make yourself a somewhat better creature; and in order to do that, find out first what you are now. Do not think vaguely about it; take pen and paper and write down as minute a description of

yourself as you can, with a date to it. If you dare not do so, find out why you dare not, and try to get strength of heart enough to look yourself fairly in the face, in mind as well as body.

"I do not doubt but that the mind is a less pleasant thing to look at than the face, and for that very reason it needs more looking at; so always have two mirrors on your toilet-table, and see that, with proper care, you dress body and mind before them daily. Write down, then, frankly what you are, or at least what you think yourself; not dwelling upon those inevitable faults which are of little consequence, and which the action of a right life will shake or smooth away, but that you may determine, to the best of your intelligence, what you are good for and can be made into.

"Girls should be like daisies — nice and white, with an edge of red if you look close; making the ground bright wherever they are; knowing simply and quietly that they do it, and are meant to do it, and that it would be wrong if they did n't do it."

DO SOMETHING FOR SOMEBODY QUICK!

ARE you almost disgusted
With life, little man?
I will tell you a wonderful trick
That will bring you contentment
If anything can —
Do something for somebody quick!

Are you awfully tired
With play, little girl?
Weary, discouraged, and sick?
I'll tell you the loveliest
Game in the world —
Do something for somebody quick!

Though it rain like the rain
Of the flood, little man,
And the clouds are forbidding and thick,
You can make the sun shine
In your soul, little man —
Do something for somebody quick!

Though the skies are like brass
Overhead, little girl,
And the walks like well-heated brick,
And all earthly affairs
In a terrible whirl —
Do something for somebody quick!

— *Children's Home Missions.*

OBEDIENCE.

OBEDIENCE, to be truly righteous, must be willing obedience. Submission bought with fear of pain, of whatever kind, is not obedience in this high sense. If the submission be bought with fear of legitimate consequences, it is certainly to be greatly preferred to submission bought with mere fear of brute pain, as when corporal punishment is employed; but the submission obtained by fear of any kind is far below the cheerful obedience to law born of love and intelligence. I do not believe that a perfectly unbroken habit, such as the meekest child never attained, of yielding to the father or mother as the embodiment of wisdom, can ever lead to the acquirement of the insight needed for this form of obedience.

There is a poem somewhere that tells of three angels who said, "Thy will be done." One spoke in a thick voice, choked with sobs and tears. The next was meek, and with downcast eyes and utter submission murmured, "Thy will be done." But the third, who was the highest of all, sang with joyous voice the

words that to him did not mean submission, but the fulness of life.

I believe, from the bottom of my heart, that there is a light which lighteth every man that cometh into the world, and that we do not need to offer any little rush-light of human commands to assist it.

That every normal child is physically obedient to law needs no proof. Babies will eat and sleep at regular intervals if simply let alone. The only times that they need physical regulating is when their natural intervals fail to fit with the intervals of an artificial civilization. No one doubts that the physical welfare of the race would be secured were the human body left absolutely free to take its full meed of rest and sleep, food and fresh air. All diseases arise from some form of artificial interference with the body's need of these things. Similarly, mental and moral health — righteousness — depends upon the absolute freedom of the inner man to get his supplies of truth, experience, and love. All things which interfere with this freedom, even the parent's commands, are detrimental to the child's well-being.

Please understand me clearly. I am not advocating anarchy. I am only proclaiming that the child, like the adult, must be free to obey or disobey. If he disobeys, he must take the natural consequences, and the mother must help him to understand them; but he must obey, not mother, but God, and that from the very beginning. There is no effort about it at first. The child tends to obey the unconscious laws of his being naturally. It is a forced and artificial self-control that he gets by being tantalized by buttons, which he must not swallow. The less he is brought into such opposition with himself, the better. It is not so much to keep buttons and things that were never designed by nature for a child, out of his way, but it is much that he should not form the habit of feeling that the things that are forbidden are the pleasant ones. He should be led to feel that the things that are permitted are the pleasant ones. By this road, not the other, may he attain the height of the angel who sang while he obeyed.

We are all so warped ourselves that it is difficult for us to realize that it is possible for us to rejoice, even in this world, in being good. Yet the truth is, of course, that every human being was made to conform to law, and to find his only true happiness in so doing. The child is in unconscious conformity to law. It is the aim of education to bring him into conscious conformity. This is done not by substituting the mother for the law, but by encouraging every waking faculty of the child, as it awakes, to keep in harmony with its own law, and by showing the child that whatever pain it suffers comes, not from mother, but from its own lack of harmony. To this end it is wise for the mother to give as few commands as possible, that the child may not conceive of her as the source of righteousness, but may look elsewhere; and to inflict as few punishments as possible, that the child may not conceive the pain of wrong-doing as something to be escaped by avoiding mother.

It is necessary that the child, from the beginning, recognize himself as a free agent. Indeed, he always does; and it is from the contact of this recognition of his, which is as necessary to the moral man as the instinct of self-preservation is to the physical, with the mother's desire to teach him submission, that all friction comes. Let the mother also recognize her child's free will, and there will be peace between them, and the best possible conditions for growth. — *Marion Foster Washburne.*

UNEXPECTED BLESSINGS.

How many things are clear to us to-day
That yesterday we saw through mist of tears;
How many things are better than our fears;
What sunbeams through our self-wrought shadows play!
Not one fair, earnest hope is laid away
Within its shroud of weary, wasted years,
But from the tangled grass above it peers,
Full soon, some blossom redolent of May.

We stretch beseeching hands to Heaven, and pray
That this or that be granted while we plead;
We turn with empty hands from prayer, and say:
"We are unheard, forgotten, lost indeed!"

When low! within our reach some priceless gift,
For which imploring palms we dared not lift.

—*Harriet E. Pritchard.*

THE DANGEROUS BOOK.

If, when I read a book about God, I find that it has put him farther from me; or about man, that it has put me farther from him; or about this universe, that it has shaken down upon it a new look of desolation, turning a green field into a wild moor; or about life, that it has made it seem a little less worth living on all accounts than it was; or about moral principles, that they are not quite as clear and strong as they were when this author began to talk, then I know that, on any of these five cardinal things in the life of man,— his relation to God, to his fellows, to the world about him, to the world within him, and the great principles on which all things stable center — that for me is a bad book. It may chime in with some lurking appetite in my own nature, and so seem to be as sweet as honey to my taste; but it comes to bitter, bad results. It may be food for another; I can say nothing as to that. He may be a pine, while I am a palm. I only know this, that in these great first things, if the book that I read shall touch them at all, it shall touch them to my profit, or else I will not read it. Right and wrong shall grow more clear, life in and about me more divine; I shall come nearer to my fellows and God nearer to me, or the thing is a poison.— *Dr. Robert Collyer.*

We must first of all establish a different moral code among ourselves, men and women alike,— a code which will hold a man as strictly accountable for the highest observance of moral principles as it does a woman. The women of the world are suffering to-day from a code of morality which imposes upon them all the responsibility for purity and all the penalty for wrong-doing, whether the wrong-doing is strictly theirs or not. We have reached a state of affairs of which we can only find a solution in the cultivation of a higher and truer sentiment — a sentiment that will not excuse a man because he is a man, nor punish a woman because she is a woman. That which is wrong in woman should be equally wrong in man, and the one should be held as strictly accountable as the other.— *Ladies' Home Journal.*

Gum arabic and gum tragacanth in equal parts, dissolved in warm water, make the best and most convenient mucilage to keep in the house.

Remove rust from steel knives by covering them for two days with sweet oil; then rub with a lump of fresh lime until the rust disappears.

CHANGE OF ENVIRONMENT FOR CONSUMPTIVES.

BY KATE LINDSAY, M. D.

As previously stated in these articles, sunshine and pure air and a clean dwelling-place are three of the essentials for a good home for the tubercular patient; and often these may be obtained for those who live in the country by just moving to another place on the farm and into a clean new house. The writer knew a case where a farm home built on the shady side of a hill, and buried in shade trees, became infected with tubercular germs, and a number of members of the family, one after another, fell victims to the malady. After the father and three children of the second family had died, the mother became so impressed with the idea that the house was infected that she had a cottage built upon the top of the hill, where wind and sun could have free access to it; and the result was that not another member of the family died of this disease. The pale cheeks of the children became rosy, and they all lived to grow up. So, often all the farmer needs to do, when his home is in a sunless locality, is to change the residence to the other side of the farm onto that barren gravelly knoll, to insure the benefit of a change of residence for his pale and delicate wife and sickly children.

If this cannot be done, the shade-trees can be thinned out so as to let in the sunshine and air, and the house thoroughly fumigated and cleaned. If a number have died in the house from tubercular disease, all the plaster as well as the paper should come off. The dampness of the soil can in a great measure be overcome by underdraining, and by keeping all fruit and vegetables out of the basement. The sleeping-rooms should all be in the second story, and all should have windows that will let in the sunlight sometime during the day.

When moving from the old house to the new, or cleaning house, great care should be taken to have everything that is moved into the new home clean, so as not to carry the contagion along. Old feather beds, and old cotton comforters should all be burned, as they can never be made really clean after being used in contagious diseases. This may seem wasteful, but in the end it is the best economy. It has often happened that the clothing and bedding used by some member of the family who has died of consumption has been a source of infection to others. No one thought of the germs which found a shelter in the feathers and cotton of the bedding, or in the dust stored away in the clothing between the linen and cloth. All articles of clothing and bedding which can be washed should be disinfected and thoroughly cleansed. All the furniture should be washed and disinfected; and carpets fumigated, beaten, sunned, and aired. It is the best way to destroy old carpets that have been badly soiled, as it is almost impossible to cleanse them without ruining them. It is better not to use carpets on the floors of rooms where a patient has a contagious disease.

In changing the patient's surroundings, always be careful to make the change to a dry, high, sunny location. If the patient cannot change his dwelling-place, he may at least change his room. If it be on the shady side of the house, it can be exchanged for one on the sunny side; if on the first floor, it can be changed to an upper story, which will bring the patient nearer the clean air and sunshine. The worker in a close office or shop who has a tendency to tubercular disease, should, if possible, change his occupation

to some outdoor work. In fact, it is surprising what good health resorts may be found near home, when one has not the means to seek for them abroad.

No one should ever give himself up to die of consumption, even when his disease is considerably advanced, for many have gotten well after numerous grave symptoms had developed. It is the duty of every one to live as long as he can, and to try to keep as well as possible while he does live. As man's days are threescore and ten, he should seek to find out why so many die young; and as consumption is a disease which takes most of its victims in the prime of life, it would be well for every one to try to ascertain what can be done to stay its ravages, and to prevent the children of the next generation from being its victims. After the disease is once contracted, cure is always more or less uncertain; but when the ounce of preventive is used, the result is certain. What every adult person should know and fully comprehend, is that every case of tuberculosis is a case of infection from some other case, just as much as is a case of smallpox or measles, and that, were the contagious matter all destroyed, there would be an end of this disease.

Another thing to be remembered is that, as to the matter of heredity, the tendency to all disease is an acquired habit. Were we to go back along the line of ancestry of the most tubercular race, we would find that sometime in the family history the ancestors had been strong and robust. A predisposition can be acquired in one generation, but the longer it is cultivated by successive generations in the same family, the harder it is to eradicate it. Drunkenness and licentiousness, and all forms of vice, predispose to it. Life in the city, where all is hurry and excitement, and the air is foul and most of the work is done indoors, tends to weaken vitality, and to prepare many young people for the easy inroads of this disease. Every man, woman, and child has a part to do in exterminating this great plague. The principles of household sanitation and personal hygiene must be understood and practised by every family.

Tubercular disease is different from many other contagious diseases, most of which run a certain course, and end in either recovery or death in a few days or weeks at the farthest. This ends the danger from that case in a short time, if it is managed in a sanitary manner. With tuberculosis the patient may live for years; and if he is not instructed, goes about distributing infecting material everywhere. The writer knew of a case where a tubercular young woman married into a robust family, and infected her husband, her father-in-law, and sister-in-law, besides bearing two feeble infants who perished in babyhood. In the space of eleven years she was the means of almost exterminating her husband's family. Not a word would she hear of restriction and care about the tubercular discharges, and always felt insulted when the matter was mentioned to her. She often said, "I have not the leprosy."

The people must have an education in regard to this matter of preventing disease, and then they will be ready to co-operate with the physician and sanitarian to prevent disease by destroying infecting matter and keeping the body in a state of health. In the prevention of consumption, as in its treatment, the essentials are the same,— sunshine and pure air, good food and pure water, clean surroundings, and the proper altitude and temperature. It is encouraging to know that most of these things can be

had at home, in good measure at least, by those who cannot have them abroad. The sun shines for all; and the earth is surrounded by air to the depth of many miles, which the winds of heaven and the snow and the rain are all at work to keep pure. It is man who shuts it out, and lives in the impure atmosphere of his own creating, and eats food and drinks water defiled by his own filth, thus harboring the pestilence which loves the darkness until he has infected his home with disease. There are thousands daily and yearly laid low who might have lived out their appointed time if they had only been wise in their day and generation. Many pine and sigh for what they cannot get. Often the poor envy the rich, and feel greatly distressed because they cannot take themselves or their friends to some famous health resort, when they might, with a little care, give them all its advantages at home. That the home nurse may know how to do this for her sick friends, she should improve every opportunity to become well informed in regard to home sanitation. If these imperfect papers shall help some one anxious to do missionary work for the sick, the writer will feel that they have not been written in vain.

It is not too much for mankind to expect to be able to stamp out contagious disease. Indeed, we may well be hopeful when we think what has already been done in this matter. Fifty years ago the smallpox was the terror of the world, and numbered its victims by thousands. To-day, in the German army of nearly one-half million men, only three deaths have occurred from this disease in almost a quarter of a century; and there is no doubt that the malady might be completely stamped out, were it not for the ignorance and prejudice of the people. In the army every soldier is vaccinated until there is no one susceptible in that army of men. What man has done to stamp out one disease can be done for any other, if he only knows what to do, and has the courage to live up to his knowledge, and the power to make it practicable.

Germs under the Finger-Nails.—Children should not be allowed to scratch themselves so as to break any portion of the skin. The finger-nails are always more or less infected with germs, and when the skin itches from any cause, the child will often scratch the irritated spots so hard as to injure the skin; and the sore becoming infected, a serious boil or abscess may form; or it may be the starting point for erysipelas, or some other severe blood-poisoning disease. The common causes of scratching are the irritation due to woolen clothing; skin diseases, such as eczema; and the bites of insects, as mosquitoes, bedbugs, fleas, the itch-mite, and lice. Whenever a child or an adult has a habit of scratching habitually, the cause should be sought and removed at once. In some cases it will be found simply a case of dirt, and a bath and shampoo will be all that is required. In other cases the head ought to be treated, and in still others the family physician may need to be consulted. Children who have the habit of handling themselves can often be cured by simple cleanliness and by healing all the denuded surfaces.

Trained Nurses.—A charitable woman in the West, anxious to give to some young girls there the preparation necessary for them to earn their living as skilled nurses, lately visited several of the great hospitals in the Atlantic cities,

where nurses are trained. She inquired what were the difficulties in the way of a gently bred girl who wishes to adopt the profession for life. The answers of the managers of these institutions were the same: —

"They are usually disgusted with the coarse, practical work necessary at the outset. They have made up their minds to dress wounds, to handle diseased and even loathsome bodies, to lose their sleep, to give untiring care and sympathy to their patients; but they revolt when they are set to scrubbing floors or washing dishes, or even to cooking. This, they say, is menial work, and has nothing to do with the sick patients to whom they have resolved to sacrifice their lives. Yet this drudgery is part of the necessary training for a skilled nurse."

A woman who has charge of a large hospital, and who is noted for her executive ability, said to the inquirer: —

"When I went into training as a nurse, I was indignant because for two months I did nothing but polish bath-tubs and wash vials. But," she added with twinkling eyes, "nobody can find a speck on a spigot or vial in this hospital! I learned that cleanliness in her bottles was as necessary to a nurse as zeal for heroic self-sacrifice."

INSUFFICIENT sleep is one of the greatest crying evils of the day. The want of proper rest and normal conditions of the nervous system, and especially the brain, produces a lamentable condition, — deterioration in both body and mind, exhaustion, excitability, and intellectual disorders generally. Up to twenty a youth needs nine hours sleep, and an adult should have eight. —*New York State Medical Reporter.*

THE HYGIENE OF THE NURSERY.

BY J. H. KELLOGG, M. D.

(*Continued.*)

The Mouth and Throat. — An infant opens its mouth when pressure is made upon the chin with the finger.

In a very young infant, the edge of the gums is sharp. As the teeth begin to develop, the gum widens in places.

A hot, dry mouth indicates fever, as does also a white coat upon the tongue.

A bad breath and a brownish coat upon the tongue indicate indigestion.

A fecal odor of the breath is often present in cases of extreme constipation.

Aphthæ, or ulcerous patches, accompanies gastric irritation.

Temperature. — The temperature can be accurately determined only by a thermometer. Abnormal heat of the skin may indicate fever or only feverishness.

The temperature is best taken by introducing the thermometer into the rectum far enough to cover the bulb, holding it in place for five minutes. The temperature may also be taken by placing the thermometer in the axilla, or arm-pit, after first drying the skin. The arm should be laid across the chest so as to keep the thermometer covered for five minutes. In a child old enough to obey instructions, the temperature may be taken by holding the thermometer in the mouth. When taken in the mouth, the patient must be made to breathe through the nose. The bulb should be kept continuously under the tongue.

The thermometer should always be

oiled before introduction through the anus. Care should always be taken to shake down the index before taking any temperature. The top of the index should be below 95° F. The time should be measured by a watch.

The natural temperature of a child is 98.5° to 99° F. in the morning, and 97.5° to 98.5° in the evening. When these figures are reversed, that is, when the temperature is lowest in the morning in a young child, the indication is that some grave disease is present.

A very marked depression of temperature occurs in collapse just before death, and also in cholera infantum originating in indigestion and loss of blood.

Elevation of temperature indicates fever. A temperature of 102° F. indicates a moderate fever; 105°, a grave fever; and 107° or more, a very grave condition, likely to prove fatal.

A sudden fall of temperature to the normal point after fever is generally an indication of the beginning of convalescence.

The Skin.— After the first week or two, the skin of a healthy child is white and transparent. The red color of the skin of a new-born infant begins to disappear after the first week.

A bluish appearance of the lids and lips indicates imperfect purification of the blood, with probable disease of the heart or lungs.

A yellow color of the white of the eye indicates jaundice.

Chronic constipation produces a dingy or muddy complexion.

A waxy pallor is present in kidney disease.

An unusual whiteness is usually present in acute or chronic disease accompanied by great exhaustion.

The Bowel Discharges.— For the first six weeks of an infant's life the bowels should move three or four times daily; from two months to two years, two movements a day is the average; after two years, one movement daily is the normal number, though overfeeding may give rise to a larger number.

During the first few weeks of an infant's life, the stools are soft and yellow or orange in color, and usually have a slightly sour odor. As age advances, the stools acquire greater consistency, and after two years they possess the same general character as those of an adult.

Too frequent stools are present in diarrhea. The presence of undigested food, cheesy lumps, and a greenish color indicate indigestion. The presence of mucus indicates intestinal catarrh. Clay-colored stools show a deficiency of bile. Blood clots indicate hemorrhoids, or ulceration of the intestinal mucous membrane. Membranous threads indicate a form of catarrh of the intestines.

The Urine.— The urine of a healthy child is limpid and colorless; it does not stain a napkin. In health, the discharges sometimes occur as often as once an hour, and again not more than six or eight times in twenty-four hours. If urine is not passed during a period of twelve hours, the matter should have immediate attention.

Staining of the napkin usually indicates indigestion. A blackish stain is usually the result of acute disease of the kidneys.

Pain in passing urine indicates excessive acidity of the urine, stone in the bladder, or irritation of the urethra from some cause; and if not soon relieved, the case should be carefully investigated by a skilled physician.

(*To be continued.*)

ORANGES AND SOME WAYS TO USE THEM.

BY MRS. E. E. KELLOGG.

ACCORDING to some authorities, the far-famed "golden fruit of the Hesperides" which Hercules stole, was the orange; but it hardly seems probable that this fruit was known to writers of antiquity. It is supposed to be indigenous to Central and Eastern Asia. Whatever its nativity, it has now spread over all the warmer regions of the earth.

The orange-tree is very hardy in its own habitat, and is one of the most prolific of all fruit-bearing trees, a single tree having been known to produce twenty thousand good oranges in a season.

Orange-trees attain a great age. There are those in Italy and Spain which are known to have flourished for six hundred years. Numerous varieties of the orange are grown, and are imported to our markets from every part of the globe. Florida oranges are among the best, and when obtained in their perfection, are the most luscious of all fruits.

Oranges for the table may be served whole, or the skin cut into eighths, half way down, separating it from the fruit and curling it inward, thus showing half the orange white and the other half yellow; or the skin may be cut into eighths, two thirds of the way down, and after loosening from the fruit, be left spread open like the petals of a lily.

RECIPES.

Orange Rice.—Wash and steam the rice according to directions already given. Prepare some oranges by separating into sections and cutting each section in halves, removing the seeds and all the white portion. Sprinkle the oranges lightly with sugar, and let them stand while the rice is cooking. Serve a portion of the orange on each saucerful of rice.

Orange Float.— Heat one quart of water, the juice of two lemons, and one and one-half cupfuls of sugar. When boiling, stir into it four tablespoonfuls of corn-starch rubbed smooth in a very little water. Cook until the whole is thickened and clear. When cool, stir into the mixture five nice oranges which have been sliced, and freed from seeds and all the white portions. Meringue, and serve cold.

Orange Custard.—Turn a pint of hot milk over two cups of stale bread-crumbs, and let them soak until well softened; add the yolks of two eggs, and beat all together until perfectly smooth; add a little of the grated rind and the juice of three sweet oranges, and sugar to taste. Lastly add the whites of the eggs beaten to a stiff froth, turn into cups, and place them in a moderate oven in a pan of hot water, and bake twenty minutes, or until the custard is well set but not watery.

Orange Pudding.— Pare and slice six sweet Florida oranges, removing the seeds and all the white skin and fibers. Place in the bottom of a glass dish. Make a custard by stirring two tablespoonfuls of corn-starch braided with a little milk into a pint of boiling milk, and when thickened, add gradually, stirring constantly meanwhile, one egg and the yolk of a second egg well beaten with one-fourth cup of sugar. When partially cool, pour over the oranges. Whip the white of the second egg to a stiff froth with one-fourth cup of sugar which has been flavored by rubbing over some orange peel, and meringue the top of the pudding.

Orange Pie.— Rub smooth a heaping tablespoonful of corn-starch in three table-

spoonfuls of water; pour over it a cup of boiling water, and cook until clear, stirring frequently, that no lumps form. Add one cupful of sour orange juice, a little grated rind, and the juice of one lemon, with sugar to taste. Lastly, when quite cool, stir in the well-beaten yolks of two eggs. Bake with under crust only. Meringue the top when baked, with the whites of the eggs well beaten with a tablespoonful of sugar, and a very little grated orange peel sprinkled over it.

A LESSON IN BREAD MAKING.

In a recent number of her journal, Eleanor Kirk gives a bit of real experience in ferreting out the cause of failure in cooking: —

"'If you will only show me just how to put the bread materials together,' the hostess remarked, after a long talk in regard to domestic matters, 'then, after I have learned, it will be easy for me to teach the cook.'

"This request was gladly complied with. An object-lesson is a thousand times better than either written or oral instruction.

"The kitchen was neat and in apparent harmony with the rest of the house; but when the necessary cooking-dishes were brought out, a marvelous discrepancy was found to exist. The sieve was of tin, and broken in several places. The bread-pan was also of tin, and worn and rusty. The molding-board, which the cook supposed would be needed, was covered with dough which had been left from time to time to dry on. There were layers and layers of this time-hardened crust.

"Now, this was a situation; but what could an honest woman do? Flour might as well remain in its native state as to be run through a sieve of this sort. So there was a slight hesitation on the part of the teacher, a delicate examination of the article in question. Then the hostess said: —

"'I am afraid this sieve won't do.'

"'No; it's a sieve that doesn't sift. I think I would throw it away.'

"'Can't you manage without one this time?'

"'It might be done, but a good sieve is a very important article. It lightens the flour, and prevents any undesirable substances that may have found their way into the flour from appearing in the bread.'

"'Well, how about these pans?'

"'Tin, even new tin, is not fit for bread-making. Agate-iron ware or crockery utensils are the only things suitable. Tin pans that are not rusty are all right for the baking of the loaves.'

"'Then, as far as I can judge, we have nothing fit to use.'

"'That's about the truth.'

"'Do you think we will need a new molding-board?'

"It would not have been just the thing to say that the old one would have answered every purpose if it were properly scraped and scrubbed. Common politeness forbade such candor. So the answer was made that molding-boards were necessary only for rolls and pie-crust, and of course a perfectly smooth board must be used for these delicacies.

"'But isn't our board smooth?' my companion inquired.

"'It's pretty humpy with dough,' said the Irish cook. 'I guess that's what the lady means.'

"'O, I see; but my mother used to say that it was a great waste to wash the molding-board every time it was used, so I gave Katie instructions to turn it bottom upward.'

"That afternoon new cooking utensils were bought, and the next morning was the occasion of a very successful lesson. When it came time to dissolve the compressed yeast-cakes for the quick loaves, the teakettle was found to be empty.

"'I thought I told you, Katie, to have boiling water ready.'

"'What for?' said Katie.

"'Why, to dissolve the yeast, of course.'

"'But the directions say tepid water,' the cook replied. She had read more intelligently than her mistress.

"'Katie is right. Yeast must be dissolved in moderately warm water.'

"'Well, no wonder our bread was such stuff. I suppose boiling water kills the yeast.'

"'It has about the same effect upon the vitality of yeast as it would have upon yours if you were plunged into this steaming liquid. Ice-water or cold water is equally harmful.'

"This was the condition of one kitchen visited; and how can one help wondering about others, when their mistresses are continually writing of their failures?

"The usefulness of anything can be destroyed. The best of yeast can be made absolutely worthless by boiling or freezing.

"Women who are clamoring for opportunities would do well to fit themselves to become teachers in bread-making. They would find plenty of employment."

HOW DO YOU TREAT YOUR HIRED GIRL?

THE Hon. Carroll D. Wright is authority for the statement that the United States contains a million hired girls. In view of this fact and of the hired girl's dependence for home happiness upon the Christian courtesy of the family in which she lives, I would like to ask the following questions of those who employ a hired girl: —

How many of you say, "Good morning" and "Good night" to her? How many of you greet her cordially on her return from an absence? How many of you speak of her in a homelike, family way to a guest when she enters the room, saying, "This is our Eda, who does so much to make our home a pleasant place," or something of the sort?

Who can account for the fact that good Christian people will pass a hired girl just as if she were a block of wood or an automaton, not giving her even so much of a greeting as they would a household dog or cat?

Why should the hired girl be called the servant? To be sure, one who serves does that which is altogether honorable, but the term has fallen into a sort of synonym for servitude. Would it not be better, therefore, to use the expression "our helper"? — a good, strong, Saxon word that has uplift in it, and no sense of degradation.

How many girls are asked to be present at family prayers, and are remembered in the prayer that is duly offered? How many are fitted out with Bibles, if they have none, and are taught to read our language, if of foreign birth?

How many look carefully after the hired girl's room — to see that her bed has springs, a soft mattress, a rocking-chair,

and other comforts? How many speak to her kindly about an extra good baking of bread or a nice dish in which she may feel a natural pride? We are all glad of recognition, and yet we often forget that those in humbler situations of life are just as glad to be appreciated as we in ours.

It has touched my heart to hear now and then in the grace before meals some such expression as this, "God bless the hands that prepared for us this food." Little deeds of kindness, how easily they are scattered, and how strangely we forget them! but I like to remember that evil is wrought more for want of thought than for want of heart; and so in these friendly lines I had hoped to remind myself anew and any other who may read them, of a few among the many hundreds of Christian deeds by which we may brighten lives so wholly dependent for happiness on our good will. — *Frances E. Willard.*

An Octogenarian Vegetarian.— Sir Isaac Pitman, inventor of the modern method of shorthand writing which bears his name, although at the time of his death, a few weeks since, over fourscore years of age, gave every evidence of mental vigor. Mr. Pitman had been for many years a strict vegetarian, and an active member of the English Vegetarian Society.

A CHICAGO physician recommends prunes as a diet particularly suited to the lower classes, maintaining that there is a certain medicinal property in this fruit which acts directly upon the nervous system, the seat of the evil passions.

THAT man is not by nature carnivorous is proved, in the first place, by the external frame of his body. He has no curved beak, no sharp talons and claws, no pointed teeth, no intense power of stomach or heat of blood which might help him to masticate and digest the gross and tough flesh substance; on the contrary, by the smoothness of his teeth, the small capacity of his mouth, the softness of his tongue, and the sluggishness of his digestive apparatus, nature sternly forbids him to feed on flesh. — *Plutarch.*

BACTERIOLOGISTS claim that "an average oyster, served in 'first-class restaurants,' contains a minimum of 44,000 and a maximum of 880,000 germs. Think of it! you reckless creatures who step up to the oyster bar and take your half-dozen on the shell. If lucky, you have only swallowed 264,000 germs; or it may be you have within you, as a result of your light lunch, 5,280,000 germs!"

Selected Bits.

LITTLE Mary was sent to the store one day to have some sirup sent up for the table. "Does your mother want refined sirup?" asked the merchant. "I think she does," answered Mary. "She is a very nice lady."

"WOULD N'T it be terrible, Robbie," said little Mable as they drank their morning's milk, "if there wasn't no cows?"

"Yeth," said Robbie. "We'd have to dwink condenthed milk then, and it 'th horrid."

"WELL," said the dentist, who had just moved in, "the next thing to do will be to have this 'bakery' sign that Doughboy left, painted out."

"Just paint out the first letter," suggested his student.

EDITORIAL.

A TWENTIETH CENTURY DIET.

If vegetarian principles continue to gain in popularity as rapidly within the next ten years as they have within the last, it would seem reasonable to expect that before the passing of another quarter of a century, the greater portion of intelligent men and women in civilized countries must have come to recognize the fact that the bodies of the lower animals were never intended as food for human beings. That the use of flesh food is naturally repugnant to the instincts of an unperverted human being is evidenced by the abhorrence with which many millions of intelligent people in India look upon the consumption of flesh. A missionary stated to the writer that he had frequently seen, while passing along the streets in Calcutta or Bombay, Buddhist priests turning away from the dead carcasses exposed in front of a Mohammedan meat-shop with an expression of the most intense repugnance and horror upon their faces. It may be because the progenitors of the Anglo-Saxon race were cannibals, and that through heredity some vestiges of the savage instinct still remain in us, that the English-speaking races are so much given to flesh-eating.

That a flesh diet is not necessarily essential for health has been fully established by so many facts and arguments that it is no longer necessary to undertake seriously to prove the sufficiency of a diet furnished exclusively by the vegetable kingdom. After more than thirty years' trial of vegetarian practise, the writer finds himself more than ever convinced that it constitutes the perfect diet. It seems a little singular, indeed, that the English and German peoples, who have had such superior advantages for intellectual and moral culture, should be, in this respect, so far behind their Aryan relatives in India and adjacent countries.

Our readers will perhaps be interested in the following extracts taken from a speech delivered by A. C. Khastgir, M. D., before a vegetarian society in the city of Calcutta, India: —

"The ancient Egyptians, who left an unparalleled glorious history of their own, and the most superb monument behind them, were, according to Samuel Sharper's History of Egypt, absolute abstainers from animal food. The Egyptian boatmen and laborers, inhabiting either bank of the Nile, even now live on unleavened bread and vegetables, and have the water of the Nile for their drink. In India, the Jains, an off-shoot of the Buddhists, who may be counted by tens of thousands, and who follow the profession of trade with peculiar tact and intelligence, are not only absolute abstainers from the use of animal food, but the most religious of them are even afraid of trampling the lowest insect under their feet, for which they even keep their eyes on the ground they have to pass over, or carry a broom in their hands to sweep out the insignificant creepers before they proceed forward.

"The up-country Sepoys, the widows of the higher-class Hindus, the Mahrattas, etc., etc., all abstain from fish and meat. It is quite true that the better-circumstanced among them take milk, but the poor can hardly enjoy this luxury once in a fortnight or a month. But the herbivorous animals also suck milk in the first period of their existence; consequently milk is a food which is alike natural to the herbivora, carnivora, and frugivora.

"But there are vegetarians in other parts of the world. The Chinese live chiefly on vegetable food. The Japanese generally abstain from animal food as well as milk, and live chiefly on rice, fruits, and pulse, according to the modern universal history, taking fish occasionally.

"The Sierra Leonists, inhabiting the most unhealthful country in the world, live exclusively on rice and fruits, water being their only drink.

"The workingmen of Constantinople, according to Sir W. Fairbairn, live on bread and fruits chiefly. The men of Herculean strength and figure in the Ottoman army neither take meat nor drink liquor.

"It is said that the people of cold climates cannot but take animal food to keep up their strength; but do not most of the Russian peasants take black bread and vegetables only? In certain parts of Norway, animal food is quite unknown, and the people live on certain vegetable products peculiar to those northern climes. The Scotch peasantry live on bread and cheese, and they are more than a match for their compatriots of the army and navy, who gorge mostly on animal food at the expense of the government they serve."

Our learned confrere thus shows most conclusively that flesh food is not essential to life, by citing well-known experiences of human beings in different parts of the world. When we have become sufficiently civilized, we shall look upon flesh-eating as a species of cannibalism. While we are sending missionaries to India to convert the heathen from the error of their ways, it is interesting to notice that in New York, Chicago, and other large cities in this country there are learned pundits from India laboring, by means of public addresses and in newspaper and magazine articles, to awaken the civilized men and women of a so-called Christian republic to an appreciation of the barbarities which are daily practised by their butchers and cooks, whom Plutarch in his remarkable essay on flesh-eating, calls "those layers-out of corpses."

NUT FAT AS A REMEDY IN CHRONIC CONSTIPATION.

MANY persons make the mistake of supposing that dietetic care in cases of constipation consists exclusively in the use of coarse articles of food, such as whole-grain preparations, graham bread, coarse vegetables, bran, etc. While, as a rule, coarse foods favor normal activity of the bowels, their use not infrequently fails to relieve chronic constipation, and in some instances aggravates the condition.

Fat is one of the elements of food most conducive to normal intestinal activity. The writer is acquainted with a man who for a number of years had suffered extremely from inactivity of the bowels, and who had tried, without success, every means suggested to him. He at last resorted to the use of vaseline, of which he took a tablespoonful before each meal, and his difficulty was relieved. We do not recommend this remedy, nor, indeed, the use of any other free fat, but simply call attention to the case for the purpose of emphasizing the importance of fat as an essential element of diet.

Persons who find it necessary to adopt an aseptic or vegetarian diet as the result of Bright's disease, rheumatic diathesis, uric acid poisoning, neurasthenia, dilatation of the stomach, or other conditions requiring such a regimen, often find intestinal inactivity exceedingly troublesome in consequence of the disuse of flesh food, especially that containing a considerable amount of fat. The attempt to meet this difficulty by the free use of butter, olive-oil, and other fats is found to be disastrous, through the digestive disturbances induced as the result. Fats are not digested in the stomach, but when melted by the warmth of the stomach, seriously interfere with the digestive processes which normally take place there; viz., the conversion of starch into maltose, and of albumin and other proteid substances into peptone. The indigestion resulting gives rise to fermentation of the fats present, the products of which are butyric and other highly irritating acids. By the use of emulsified fats, this difficulty may, however, be entirely obviated. It is for this reason that emulsions of cod-liver oil sometimes give relief, although, in the opinion of the writer, there are other substances less nauseating, which answer the purpose far better.

Cream freely used is sometimes well re-

ceived in these cases, but there are many persons who find difficulty in digesting it, especially those whose stomachs are dilated. Nuts are also a highly efficient means of supplying fat, if thoroughly chewed; but the great obstacle to the use of nuts is the fact that many of them are difficult to digest when eaten in their raw state, and most of them have such firm flesh that they are almost certain to be swallowed without perfect mastication.

By thorough cooking of the nuts, by which they are reduced to extremely fine particles, a preparation known as malted nuts, or bromose, has been prepared, which has proved itself of great value. Maltose is to some degree laxative in character, and bromose combines the advantages of both nuts and malt as a means of stimulating peristaltic activity, at the same time supplying the body with all the elements required for perfect nutrition. A pound of bromose is more than equal to a pound of the best beefsteak in blood-making properties, containing, in addition, fat-building and force-sustaining elements to the amount of nearly fifty per cent. Indeed, this new food furnishes the most delicate and digestive of all fats in a state of perfect sterilization and complete emulsion, and in perfect organic combination with proteids and other fat elements, just as nature provides it in our choicest edible nuts. Bromose is furnished in tablets somewhat larger than ordinary caramels, and very agreeable in flavor and attractive in appearance; each tablet weighs a little less than half an ounce. Four to six of these may be advantageously taken at each meal. In many scores of cases of chronic constipation in which the writer has made use of bromose, it has proved a most valuable and helpful remedy, though of course it cannot be considered a panacea, as there are cases of chronic constipation in which more than dietetic measures are required.

Bromose is also a very valuable food remedy in the cases of poorly nourished children. The chief difficulty in the majority of cases of artificially fed infants is the deficiency of fat in the diet. Human milk contains a much larger percentage of fat than does cow's milk. Cow's milk contains an excess of casein, which makes it necessary to dilute it, in order to prevent the formation of hard curds in the stomach. By this means the proportion of fat is still further lessened, so that the food of the bottle-fed infant generally contains not more than one half — scarcely more than one third — the normal amount of fat, which should constitute from four to five per cent. The addition of either cane or milk sugar will not compensate for the deficiency of fat.

When cow's milk is diluted with an equal quantity of water, it contains less than two per cent. of fat; to raise the percentage to the proper amount requires the addition of one dram of pure fat to six ounces of the mixture, or nearly three drams to the pound. It should be remembered also that the proportion of sugar is likewise reduced by the dilution. To increase this to the normal amount would require the addition of about four drams of sugar to the pound, or one dram for every four ounces of the mixture of equal parts of water or thin gruel with cow's milk.

The proportion of fat and of digested starch contained in bromose is such that the addition of four tablets to a pint of feeding mixture will furnish the proper amount of fat and sugar required to supplement cow's milk diluted in the manner described. One or two tablets dissolved in a little warm water, and given at each feeding, will be found to greatly stimulate the nutrition of the growing infant.

Numerous cases have been reported in which children apparently starving to death, and who could not be properly nourished by any other food, have begun to thrive immediately when fed exclusively on bromose. In the case of a rickety child, in whom the disease was far advanced, a complete cure was effected within a year by the exclusive use of bromose for six months, cereal food being added during the last six months. During half of this time, the child, who was less than a year old, took one pound of bromose daily. It is now about two years of age, and presents no trace of the disease, although when one year old, it had no teeth, and was

so feebly developed that it could scarcely move its legs.

Another preparation similar to bromose, and nearly equal to it in dietetic value, is a liquid food prepared from a formula furnished by the writer. This food consists, essentially, of a pure nut oil emulsified by the action of malt. The oil used for this purpose is prepared from edible nuts, and is sterilized and deodorized. It is extremely delicate and agreeable in flavor; and being perfectly emulsified, it does not interfere with digestion. It passes quickly into the intestines, where physiological action is required. This food is especially valuable in those cases where the stomach cannot receive food in any but a liquid form. This preparation, if desired, may be used in place of bromose, in which case one tablespoonful takes the place of a tablet. It has the advantage of being easily and quickly soluble in water, with which it forms a perfect solution.

Cod-liver oil and similar preparations should, in the opinion of the writer, be discarded as unfit to enter the human stomach except in the absolute absence of any more wholesome fat, especially since it has recently been established that the peculiar flavor of cod-liver oil is due to the ptomains and other toxic substances resulting from the decomposition of the cods' livers from which it is made.

The Nutritive Value of Peanuts.—It is not generally known that the peanut is one of the most nourshing of all foods. Its nutritive value is, indeed, far superior to that of any kind of grain or flesh food. The comparative nutritive value is shown in the following table prepared by Dr. König, of Germany, which shows the number of nutritive units per kilogram (2¼ lbs.):—

Food Materials.	*Nutritive Units per Kilogram.*
Skimmed Milk	216
Skim-Milk Cheese	1914
Full Milk	320
Bacon	2767
Butter	2610
Veal	1157
Beef	1168
Peas	1713
Potatoes	304
Rye Flour	1328
Rice	1177
Peanut Meal	3134

Dr. Fuhrbringer, director of the Public Hospital at Berlin, Germany, has made extensive use of peanuts as a food for patients in the hospital, and speaks of them in the following commendatory terms: "They are especially valued as a part of the diet of those suffering with diabetes or corpulency. For those ailing with Bright's disease and chronic kidney disorders, where the consumption of too much animal albumin is questionable, they are also most welcome."

The Corset Again. — It was recently reported that the women of Paris had abandoned corsets for the pleasure of bicycle riding, so that there seemed some reason to expect an expanse in the waists of fashionable women. The present prospect, however, is, that those whose expectations were thus aroused are to be disappointed, and that the corset will be more popular than ever. Fashion-mongers now tell us that a woman cannot be well dressed without having a specially shaped corset for each different style of dress she wears — one for the street, another for the ball-room, another for lawn tennis and bicycle riding, still another for horseback riding, and others for housework and general purposes. It seems that no respect whatever is paid to the shape of the woman's body; the shape of the dress is determined by fashion; the corset must be shaped to fit the dress, and the woman herself to fit the corset, without reference to the intestines, or the stomach, liver, kidneys, and other internal organs. We are glad to note that, notwithstanding the tenacity with which fashion clings to the corset, the medical profession both in this country and in Europe are calling more and more loudly for reform in this respect.

M. Plagnol, an eminent French politician, is waging vigorous war on the corset, claiming its influence to be immoral, and advocating the levying of a tax upon it

sufficient in amount to prohibit its use except by the wealthy. The eighty million corsets annually manufactured in Paris would, by this means, bring a handsome revenue to the government.

Probably the majority of women who wear corsets are not aware of the fact that the first corset was worn for the purpose of concealing a physical deformity. Many fashions have originated in this way. The time has certainly come when a most earnest and vigorous protest should be made against an article of dress which in no way promotes health, beauty, or grace, but is, on the contrary, the most prolific of all causes of external and internal deformities, such as flat chest, spinal curvature, prolapsed stomach, displacement of the kidneys, prolapse of the bowels, and a great variety of digestive and nervous disorders growing out of these morbid conditions.

Snuff Poisoning.— Dr. Grayson, of Texas, recently contributed to the *Texas Medical News* an account of a case in which he was called by a gentleman to see his wife. He found her suffering with nervous tremors, palpitation of the heart, general debility, and insomnia; skin very sallow, tongue thickly coated with a white fur, stained brown by snuff, the odor of snuff upon the breath, and every evidence of general debility. The lady was using a bottle of snuff a week. It being intimated to her that she was not altogether cleanly in her habits, she indignantly protested to the contrary. The doctor proposed to her that she should apply a test, to which she consented. The following is the test, as described by the doctor, with the results noted:—

"'On retiring at night, divest yourself of all clothing, envelop yourself in a well-wrung wet sheet, lying in the same until early dawn; then remove the sheet and hang it out in the open air; and tell me the result of the experiment.'

"She tried the experiment the same night, and I saw her the next day; she met me with a smile playing on her emaciated cheek as she said, 'Doctor, I give up; I am not a clean woman. Just look at that sheet! It looks and smells like an old, dirty, filthy snuff rag,— and just look at my flesh and skin,' said she. 'I told my husband this morning that I was not only mortifying, but that I was actually mortified.'

"In this case the use of snuff was totally abandoned, and the patient treated strictly on hygienic principles; and in consequence she became a healthy, hearty woman, and furthermore, a very grateful one, always giving great praise and sincere gratitude to her physician."

The Cigarette Evil.— The rapid increase of drunkenness, especially in young men, must be attributed, in part at least, to the almost universal practise of cigarette-smoking which has developed within the last quarter of a century. It is gratifying to note that the people of the city of Chicago are coming to recognize the danger which lurks in the deadly cigarette. In response to various appeals on this subject, at a recent meeting of the Chicago board of aldermen an ordinance was passed requiring cigarette dealers to pay one hundred dollars license annually into the city treasury, and imposing a fine of fifty dollars for the first offense against the law. The ordinance also provides that no cigarettes shall be sold under any conditions within two hundred feet of a school building.

The effect of this ordinance has already lessened the number of cigarette venders. Whether or not it will lessen the number of cigarettes smoked is quite another question. If cigarette-stands are not so plentiful, the users of the weed in this most pernicious form will doubtless purchase larger quantities, and so keep a stock on hand ready for use when the appetite demands it.

The license plan is not the proper remedy for the cigarette habit. The total prohibition of the manufacture and sale of this instrument of destruction of both soul and body is the only proper remedy. In a license system the licensing authority becomes a partner in the crime by tolerating, and, in a certain way, protecting it. We hope the time will come when the cigarette, the cigar,

the snuff-box, the pipe, and all the disgusting paraphernalia connected with the tobacco habit, will be banished from the sight and smell of civilized society.

The Plague in Bombay.— Last year when the plague broke out in China, considerable excitement prevailed lest this terrible scourge should extend its ravages to this and other civilized countries on account of the free communication, through commerce, of all the great cities of the world. Those fears were somewhat allayed, however, by the fact that the quarantine measures undertaken by the English government, in conjunction with other represented powers, resulted in the control and apparent extermination of the disease. Recently, however, it has broken out in Bombay, where its ravages are so great that more than three hundred thousand persons have fled from the city. In their fright these persons have in many instances carried with them the contagion, so there is great probability that the disease will soon be found breaking out in many quarters.

The method of communication of the plague has not been well understood. Chinese bacteriologists who have studied the disease discovered last year the specific germ which is the immediate cause of the plague. Rats are found to be very susceptible to the action of this germ, and it is supposed that they sometimes carry the contagion from place to place; it is also suggested that ants communicate the disease by feeding upon the dead bodies of rats which have been infected, and then in their migrations carry the infection to every part of the house.

The Effect of Veils upon the Eye-Sight. — Dr. Casey A. Wood, in the Boston *Medical and Surgical Journal*, states that every oculist has noticed that the wearing of veils is productive of weak eyesight, headaches, and sometimes vertigo and nausea. This is due to the strain which is necessarily exerted by one or both eyes in order to see through the obstruction; the irregular figuring of the veil is also a source of annoyance. The weakest eyes suffer most; but where the vision is normal, they are able to bear the extra strain, and thus symptoms traceable directly to the use of the veil usually escape notice.

Dr. Wood states that after a series of experiments, he finds that every kind of veil affects the ability to see, more or less, the most objectionable kind being the dotted veil. The least objectionable veil is the one without dots, with large, regular meshes made with single compact threads.

In conclusion, the writer states that one of the worst possible habits is the common custom of reading in public conveyances, churches, theaters, etc., through this un natural screen.

ANSWERS TO CORRESPONDENTS.

ECZEMA.— C. E. E., of Colorado, writes for directions for treating a baby afflicted with eczema on the face and head.

Ans.— The child is doubtless suffering from indigestion. The eruption is simply the outward expression of an internal disorder. We would recommend the disuse of milk as far as possible ; the best substitute is bromose, which has saved the lives of many infants in a similar condition. If the eruption is moist, apply a dry powder consisting of equal parts of starch and boracic acid. If it is dry and irritable, apply zinc ointment. Let the child live out-of-doors as much as possible.

DYSPEPSIA OR HEART DISEASE.— A young man in Illinois asks for a diagnosis of his case. He grew rapidly during his boyhood, and has since had frequent spells characterized by nervousness, constipation, irregular heart-beat, headache, beating in the stomach, sensitiveness in the chest, and a sensation of heaviness about the neck. His occupation necessitates sitting eight hours a day at the desk in a stooping position. He asks if gymnastics would be beneficial in his case.

Ans.— The young man is evidently suffering from nervous dyspepsia ; very likely he has a dilated stomach, and perhaps hypopepsia. We recommend that he spend a few months at the Battle Creek Sanitarium. He requires a thorough course of hydropathic treatment, massage, gymnastic training, and general health culture.

MOLES.— A lady inquires : " 1. What is the cause of moles ? and can they be cured by any home treatment ? 2. Is Modena of any value ? "

Ans. — 1. The exact cause of moles is not understood. A mole is a morbid growth and can only be cured by removal.

2. We know of no lotion which can be applied with benefit in these cases.

GRANULATED SUGAR.—W. H. C., of Washington, writes : " I send a sample of granulated sugar which, when heated or closely confined, smells like bad eggs. Please analyze, and state what is the matter with it, and if such sugar is harmful."

Ans. — Commercial sugar usually contains a small amount of ultramarine, added to give it a whiter color. Acids decompose the ultramarine, giving rise to sulphuretted hydrogen. Ultramarine was not found in the sample sent, but may have been present in that in which the bad odor was observed.

FOOD COMBINATIONS.—A friend in Toyama, Japan, asks the following questions : " 1. Would you consider fruit and meat a good combination. 2. Do preserved rhubarb and citron come under the head of ' fruits ' or ' vegetables,' as you use the terms in your list of food combinations ? 3. Do canned peas or beans come under ' grains ' or ' vegetables ' ? 4. Where is canned corn to be placed ? 5. For a person somewhat troubled with indigestion and constipation, who takes but two meals a day,— breakfast at 10 : 30 and dinner at 4 : 30,— would you recommend drinking a glass of milk upon rising in the morning or at any other time during the day ? Would you make any difference in this regard between adults and children ? 6. Rice, sweet potatoes, and beans are the three great food staples in this country. What is their respective dietetic value, in general, and in case of constipation ? 7. What do you think of cocoa as a beverage ? is it less harmful than coffee ? "

Ans.— 1. Meat is an inferior article of food, and no combination can render it wholesome ; the combination of meat with fruit does not render the former less injurious.

2. No ; the articles named are not foods.

3. It is customary to class green peas and beans under the head of vegetables, but dry peas, beans, and other legumes are more closely allied to grains than to vegetables, since they are seeds.

4. With grains.

5. We do not recommend taking milk as a drink ; it is likely to form large curds in the stomach, which remain there until they begin to decay and become unwholesome. Many stomachs will not digest cow's milk well even when taken with the meal ; taken between meals it is still more difficult of digestion. If milk is used at all, it is better to sip it slowly at meal-time, and with some hard food requiring thorough mastication.

Milk may be altogether discarded with benefit by persons suffering from constipation, biliousness, and most forms of indigestion. Cow's milk is not the best food for children, and it is still less suited to adults.

6. The nutritive value of rice is 86.9 per cent.; of sweet potatoes, 27.2 per cent.; and of beans, 82.2 per cent. Sweet potatoes and beans have a tendency to increase intestinal activity.

7. It is a frequent cause of indigestion, though less harmful to the nervous system than coffee.

Biliousness During Pregnancy. — A reader of Good Health wishes to know what treatment and diet she should use to avoid an attack of bilious fever, to which she is subject during pregnancy.

Ans.— An exclusively fruit diet for two or three days or a week is a most excellent remedy for biliousness. In some cases an entire fruit diet may be adopted for one or two days each week, fruit being also liberally used in connection with the other food the remainder of the time.

Radam's Microbe Killer.— A. S. C. inquires, "What is your opinion of Radam's Microbe Killer?"

Ans.— We have never found a case in which we thought it was proper to recommend this article.

Chapped Lips.— A reader wishes a remedy for chapped lips.

Ans.— Great care should be taken to keep the mouth perfectly clean, as the continued irritation of the lips is partially due to the action of germs in the mouth. A hot spray to the lips, a thorough cleansing of the mouth, and disinfection of the diseased surface are the best remedies.

Cough Sirup — Micturition.— K. E. inquires: "1. Would you recommend the use of cough sirups? 2. What can be done to remedy the necessity for frequent urination, especially in the night?"

Ans.— 1. Some contain opium or other anodynes; others contain simply a sapid substance of some sort which causes secretion, and thus relieves a dry cough. Remedies of the first class mentioned should be entirely discarded. A few sips of hot water will generally have more effect in relieving a dry cough than any other remedy which can be taken.

2. Sleep with the feet higher than the head, elevating the foot of the bed a couple of feet.

Catarrh of the Bowels.— A subscriber in Minnesota asks the following questions: "1. What are the symptoms of catarrh of the bowels? 2. Can it be cured? and if so, how? 3. Would electricity be helpful? 4. Would you advise giving enemas when they cause distress for several days afterward? 5. What treatment would be best for frequent micturition in a child who is delicate and has looseness of the bowels. 6. Is hard water injurious for drinking purposes? 7. What is its effect on the health?"

Ans.— 1. The frequent passage of large quantities of mucus, accompanied with general weakness, nervousness, debility, and often pain.

2. Yes, by a course of treatment at the Battle Creek Sanitarium.

3. It is not especially indicated.

4. Enemas should be employed in such a way as not to give pain.

5. Have the child sleep with the foot of the bed raised. Apply a warm enema to relieve the bowels once or twice daily. The diet should be aseptic. Antiseptic charcoal tablets and bromose will probably be of service. Address Sanitas Food Company.

6. The more mineral matters the drinking-water contains, the less wholesome it is.

7. Indigestion and disorders of the liver and kidneys may result from the use of very hard water.

Bathing — Oil Rub.— W. H. I., of Pennsylvania, writes: "I notice in your magazine for October, 1896, that, in answer to an inquiry concerning an increase of flesh and strength, you advise a tepid bath in the morning, followed by an oil rubbing. Should the bath be taken before breakfast? and what kind of oil is it best to use?

Ans.— Before breakfast is perhaps the best time for the bath, if the person is sufficiently vigorous to react well. A pure vegetable oil is best for this purpose; such an oil can be obtained from the Sanitas Food Company.

LITERARY NOTICES.

In response to a universal demand, the Red Cross Society has published a special illustrated edition of the report of America's Relief Expedition to Armenia. This comprises intensely interesting reports from Miss Clara Barton and several of her co-workers regarding their experiences and work in the relief of the Armenian sufferers, followed by a brief resumé of Red Cross principles, and a transcript of all the telegrams sent and received while the relief expeditions were in the field, with fifty or more illustrations, prepared, in the main, from sketches or photographs taken by the workers, and a map of Asia Minor. Copies of the book may be obtained, postage paid, by addressing, with thirty cents, The American National Red Cross, Washington, D. C. The profits of the edition will be used for the further relief of the Armenians.

The "Biennial Report" of the Michigan State Public School for dependent and neglected children, situated at Coldwater, comprises a report from the board of control of the institution for the years ending June 30, 1895, and June 30, 1896, and the reports of the superintendent, treasurer, physician, State agent, and principal of day-schools, for the year from June 30, 1895, to June 30, 1896. These statistics have been prepared with much care, and are printed "in the hope that they may give to students of child-saving problems the benefit of some of Michigan's twenty-two years of experience in assisting homeless children to spheres of higher usefulness." Address A. J. Murray, Superintendent, Coldwater, Mich.

Were the March *Outing* intended merely as an incentive to travel during the coming season, its work must certainly be counted as well done. One lays down the magazine, involuntarily saying to himself: "I must have an outing this year; I must go somewhere. Where shall it be?" And how could it be otherwise, with such an array of articles as the following: "Quick Photography Afield" (Dr. John Nicol); "The Spring Flight on the Mississippi" (Frank E. Kellogg); "Cruising among the Salt Lake Islands" (Ninetta Eames); "Through the Land of the Marseillaise" (Birge Harrison); "A Trio Cycling through a Pass to the Sea" (L. W. Garland); "Something about Siam" (E. M. Allaire); "A Cycling Adventure in Mexico" (T. Philip Terry.) The articles are profusely illustrated, the pictures accompanying the one on Siam being especially fine. Outing Publishing Company, 239–241 Fifth Ave., New York.

The "Journal of Social Science" for 1896 contains the transactions of the American Social Science Association at its last general meeting, held Aug. 31 to Sept. 4, 1896, at Saratoga, N. Y., with a list of officers and members, the constitution, and a list of its publications. The president's address on this occasion — "A Sociological Retrospect" — is a deeply interesting paper, and the same is true of the papers and discussions which followed under the various departments of Education, Jurisprudence, Finance, and Social Economy. It is difficult to make any choice among so many good things, but none can be of greater interest to the student of sociological problems than two of the papers under Industrial Education; viz., "The Working Boy," by Mrs. Florence Kelley, chief factory inspector of Illinois, and "The Relation of Education to Vocation," by

E. S. Dutton, of Brookline, Mass.; also the discussion on "The Higher Education of the Colored People of the South," opened by the Rev. Dr. H. L. Wayland, of Philadelphia. Address F. B. Sanborn, General Secretary of the American Social Science Association, Concord, Mass.

THE inauguration of a president, the selection of his cabinet, and the seating of a new Congress give especial timeliness to the remarkable series of articles on various phases of the government, to be printed in the *Youth's Companion* during 1897. This series of articles and the many other brilliant features promised for 1897 show that now, on the eve of its seventy-first birthday, the *Companion* is as wide-awake and progressive as ever.

Table Talk for March contains ten pages of answers to inquiries from housekeepers all over the country. This is a special feature of this unique little magazine, and is most ably handled by Miss Cornelia C. Bedford. It also gives daily menus for the month, with evening dinners or with noonday dinners, besides some menus for special occasions. In the "New Bill of Fare," by Mrs. M. C. Myer, many topics of interest are touched upon,— among them, Lenten subjects, wedding novelties, and a child's party. "Massage for the Amateur," by Dora M. Morrell, is a practical article of much interest in the current issue. The Table Talk Publishing Company (Philadelphia) offers to mail a sample copy of their magazine, free, to any one sending name and address.

THE March *Arena* is the first issue of the magazine under its new management and editorship. The number follows the established policy of the journal as to liberalism and reform. It opens with "The Development of American Cities," by the Hon. Josiah Quincy, mayor of Boston, this being the first of a series of important contributions from the mayors of the large cities of the United States on the subject of desirable municipal reforms. "Women in Gutter Journalism" furnishes both warning and instruction to the large number of young women now entering upon or looking toward newspaper work as a calling. In "Brains for the Young," Professor Burt Wilder, of Cornell University, urges that pupils in our public schools and colleges should receive practical instruction as to the structure and functions of the human brain, and that they should be furnished with anatomical specimens for that purpose. "Concerning a National University," by Ex-Governor John W. Hoyt, LL. D., considers a question which has been more or less agitated for over a hundred years, one of its first advocates having been George Washington himself, who by his last will devised land and bequeathed a handsome sum of money to aid such an enterprise. H. M. Gulesian, the well-known Armenian manufacturer of Boston, in a terse and thrilling article on "The Armenian Refugees," gives an account of some of the measures taken for the relief of such of these persecuted people as have succeeded in reaching this country. John Clark Ridpath, the noted historian, and the new editor of the *Arena*, considers on broad lines the very interesting subject, "Democracy — Its Origins and Prospects," at the close of which he outlines the policy of the magazine to be that of "an advocate in the defense and maintenance of equality." The Arena Publishing Company, Copley Square, Boston.

PUBLISHERS' DEPARTMENT.

GOOD HEALTH in its new dress pleases everybody. Why not lend a hand to help us in getting it before the public? If every subscriber to the magazine will send us a few new subscriptions, we shall soon be able to report a monthly circulation of fifty thousand copies. Do not forget to read the magnificent premium list published in this number. Such propositions would be impossible if the Good Health Publishing Company were doing business for the purpose of money-making, but the work of this company is carried on for the purpose of doing good, and not for making money. We desire to extend the principles advocated in this magazine as widely as possible, and to that end offer these extraordinary inducements to aid in its extensive circulation.

THE mild winter with which Michigan has been blessed in the season which has just passed, bids fair to be followed by as early a spring as last year. The spacious lawns about the Sanitarium have been growing all winter, except when covered with a light fall of snow, and are already putting forth new growth. The crocuses are pushing their heads up through the mold; the robin is already here, and the numerous other singing birds which abound in this region may be expected to arrive almost any day. Michigan has a remarkably favorable climate,—mild winters, cool summers, early springs, ate falls,—no cyclones or tornadoes, no waterspouts, no severe droughts, just warm enough and cold enough and breezy enough to be comfortable; and with its abundance of splendid fruits, grains, and vegetables, it is indeed one of the favored spots of the earth.

THE Boulder Sanitarium reports a large and happy amily of patients. Boulder boasts of sunshine three hundred and sixty days in the year, according to the State meteorological reports. This

does not, however, mean a perpetual drought. There is rain enough in Boulder to keep the hillsides, as well as the valleys, carpeted with grass and wild flowers during almost the entire year; but the rain comes in brief showers, which are soon over, so that the face of nature wears almost a perpetual smile.

We desire to remind our friends, everywhere, that the Colorado Sanitarium, located at Boulder, affords the best chance in the world for the consumptive. It is beautifully situated, is equipped with every appliance known to rational medicine, and is one of the most salubrious spots on the earth, at an altitude of 5000 feet, and with a corps of well-trained physicians and nurses. This institution offers hope for the recovery of every sufferer from tubercular disease of the lungs whose constitution is not already so far exhausted that the powers of nature are incompetent to rally and resist the disease; but they should not wait until all chances for recovery have been extinguished.

It is idle to expect permanent benefit from cod-liver oil, tuberculin, or any other old or new remedies while the patient pursues his ordinary course of life. While theoretically it might be possible for a cure to be effected by some favorable combination of remedies and conditions at home, the fact that the patient has once contracted the disease is evidence that he has lost his power to resist the germs upon which such maladies depend, and consequently, if he recovers from one attack, he is almost certain to relapse. It is highly desirable to make a change of climate, and to take up a residence, in many cases permanently, in an elevated region, where the germs are less virulent or the body less vulnerable. Many most remarkable cures have been already effected at this splendid institution. For circulars, address Colorado Sanitarium, Boulder, Colo.

Treatment at the Battle Creek Sanitarium free! see our Premium List.

THE Battle Creek Sanitarium has recently had the pleasure of entertaining for a few days, Dr. Riley, superintendent of the Boulder Sanitarium, and D. T. Jones, business manager of the Sanitarium at Guadalajara. The latter reports that the establishment of a grand work is possible in Mexico. The new Sanitarium building is approaching completion, and will be fully equipped, furnished, and in running order by next fall. A special concession favoring the development of the work has been obtained from the legislature of the state of Jalisco. The enterprise is warmly welcomed by President Diaz and other leading Mexicans. There is a most encouraging outlook for the future prosperity and development of the Guadalajara Sanitarium.

DR. P. S. KELLOGG reports that the Sanitarium at Honolulu, Hawaiian Islands, is filled to overflowing with patients, and that all connected with the institution are kept exceedingly busy in caring for the sick who come to them for relief.

Health books free! see our Premium List.

DR. R. S. ANTHONY, of the Sanitarium located at Cape Town, South Africa, reports that within a week after the dedication of the buildings every room was occupied, and that there are more applicants than can be accommodated. Already there is imperative need for more room. Both the medical profession and the lay public have discovered that chronic patients can be more successfully treated in a sanitarium conducted upon rational principles than in their ordinary homes, where conditions exist which in a majority of cases are responsible for the malady from which the patient is suffering. There is a demand for the establishment of sanitariums in all parts of the civilized world. A hundred institutions on the right basis could be easily supported in the United States alone. We are glad that the American Medical Missionary College is educating a corps of physicians to go out and engage in this work in various parts of this and other countries.

DR. KATE LINDSAY, who recently left the Sanitarium to assist in establishing a similar institution in South Africa, writes, under date of February 3, of her safe arrival at Cape Town. She says: —

"I had a very pleasant voyage, without seasickness, and landed in Claremont (a suburb of Cape Town, where the new sanitarium is located) four pounds heavier by the scales than when I left Battle Creek. It has been as fine summer weather since I came as any one would wish to see. It is never hot in the house, and the nights are cool. The southeast wind blows all the time off the ocean, and, as soon as the sun sets, cools the air. It is dry here on the flats, as there is a mountain range on each side of us, and the ocean fog rests on the tops of the mountains, making them damp and chilly, while the valley between is warm and dry.

"South Africa is not America in many things, but neither is it in any sense an uncivilized land, although the people are somewhat behind the age in the matter of modern improvements. The white people of this colony are shrewd, and as quick to

understand as any in the world. They have been taught to regard all kinds of manual labor as fit only for the colored people to perform. This makes it hard to find intelligent people who will do any kind of common work."

AT a recent meeting of the Medical Missionary and Benevolent Association, under the general supervision of which the Sanitarium and its various sister institutions are conducted, numerous steps were taken toward the expansion of the already extensive work of this association in the establishment of city missions, medical missions in home and foreign lands, sanitarium enterprises, old people's homes, orphan asylums, and various other forms of relief work. The constituents of this association showed more appreciation of the work and much greater interest in it during this session than ever before, and there is every prospect that during the next two years the work of the association will be greatly increased in extent and efficiency.

A trip to Europe free! see our Premium List.

The following summary of work done by the various charitable homes and institutions under the charge of the Medical Missionary and Benevolent Association, was presented by the secretary at a recent meeting: —

Physicians under direction of Board	48
Graduate nurses under direction of Board	261
Medical students under direction of Board	81
Student nurses under direction of Board	295
Sanitariums established	12
Bath and treatment houses	10
Medical missions	9
Missionary nurses in the field	133
Homes for destitute orphans	3
Homes for destitute aged persons	1
Rescue homes for men	2
Rescue homes for women	1
Social settlements	1
Persons treated at hospitals, missions, dispensaries, etc	109,207
Surgical operations performed	4,798
Missionary visits made	61,603
Christian Help classes held	1,648
Persons fed (free lunches or penny dinners)	184,754
Persons lodged (chiefly at the Workingmen's Home in Chicago)	12,641
Otherwise aided	31,825
Garments distributed	62,857
Gospel conversations reported	39,145
Testaments given away	571
Aged persons placed in James White Memorial Home	40
Children placed in Haskell Home	175
Children placed in private homes	195

The figures given are not absolutely exact, for the reason that considerable sums have been expended by persons engaged in the work, which have not been reported.

MISS NELLIE DALY, who is engaged in organizing Good Health clubs in the large cities of Michigan, reports excellent success. In one city she has two or three clubs under instruction with good interest. We hope to have several organizers in the field soon.

THE Battle Creek Sanitarium Health Food Company now have their new milling-plant in complete operation. The system employed is unquestionably the most unique and satisfactory milling-process ever devised; it provides for a most thorough preparation of wheat grains in the removal of the woody envelope without the loss of any of the nutritive properties of the grain, and results in the production of a line of goods superior to any which have been heretofore made. Send ten cents to pay postage on a line of samples.

THE choice canned vegetables put up by the Battle Creek Sanitarium Health Food Co. so readily became popular when introduced that almost their entire product has been sold. The company report that they still have on hand a small stock of these choice goods, which they offer at reasonable prices. Address for circulars and descriptive catalogue, Battle Creek Sanitarium Health Food Company, Battle Creek, Mich.

PRE-EMINENTLY the finest and best-equipped train run by any transcontinental line to the Pacific Coast is the famous Sunset Limited of the Southern Pacific, across the continent for the season 1896–7. The line of the Southern Pacific is never interfered with by snow or ice, and the winter journey via it is like a trip in Southern Italy. The way leads through Southwest Louisiana, Southern and Central Texas, Arizona, and New Mexico, and on through the orchards and vineyards of California to the Golden Gate. The route is a most attractive and romantic one. If you want to read about it or to know of the Sunset Limited service, write to W. G. Neimyer, General Western Agent, Southern Pacific Co., 238 Clark St., Chicago, who will cheerfully furnish you with abundant literature on the subject.

Do not forget to read our Premium List.

LANDS in Central Wisconsin are now as desirable as any in the market. The lands, particularly in the central and northern part of Wisconsin, are being rapidly taken up by actual settlers. The most salable are the timber and meadow lands, now ranging in price from $6 to $12 per acre. A few months hence their value will be greatly increased. For a home or for investment no luckier chance in the West has ever before been offered. Now is the time to invest. No better farming land exists anywhere. No greater results can be obtained anywhere. Schools and churches abound everywhere. Near-by markets for all farm products. Wisconsin is one of the banner States of the West.

For further information, address or call upon W. E. Powell, General Immigration Agent, 410 Old Colony Building, Chicago, Ill.

FREE FARM LABOR BUREAU.— In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has established a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced. Address, Labor Bureau, Workingmen's Home, 42 Custom House Place, Chicago, Ill.

THE third season of that splendid transcontinental service inaugurated by the Southern Pacific, and known as the Sunset Limited, went into effect with the train leaving New Orleans in November, and will be operated semiweekly, as heretofore. The thousands of people who have made this journey to the Pacific Coast upon the Sunset Limited all want to go again the same way. If you desire any information about the route or the train, write to W. G. Neimyer, Gen. Western Agent, Southern Pacific Co., 238 Clark St., Chicago, who will cheerfully send you full descriptive literature.

EVERY-DAY EXCURSIONS to all parts of the world can be arranged for any day in the year, for one or more persons, upon application to any principal ticket agent of the Chicago, Milwaukee & St. Paul Railway. Itineraries carefully prepared for excursions to California, Florida, Mexico, China, Japan, and to any part of Europe. Estimates furnished, including all expenses. Tickets furnished for the complete journey. It is not necessary to wait for any so-called "Personally Conducted Excursion." In these days of progressive enlightenment, with the English language spoken in every land under the sun, one does not need to depend upon the services of guides for sight-seeing, but can go alone or in small family parties, with great comfort and security, and at one's own convenience. Write to Harry Mercer, Michigan Passenger Agent, Chicago, Milwaukee & St. Paul Railway, Detroit, Mich., for details, if you are contemplating a trip.

Note the unprecedented offers in our Premium List.

THE CROP OUTLOOK IN SOUTH DAKOTA FOR 1897.— It requires but a small amount of rainfall in South Dakota to mature the crop. During 1896 South Dakota had, up to September 30, three and seven-tenths inches more rainfall than during any of the previous sixteen years. Since September 30 there have been added at least three or four inches to this excess, making a gain of nearly eight inches more than the average. Early in November there were heavy rains, depositing over two inches, and since then there have been heavy snows, and about a foot of snow covered the ground on November 25.

Dakota farmers have abundance of hay and great supplies of oats, barley, and corn. Wheat has advanced to about seventy cents a bushel in the local market, and prospects for further advance are good. The ground will come out in the spring better soaked than ever before. The prospect for better prices next season is good.

There are thousands of people in the East who could do no better than to go to South Dakota now and buy their seed and feed for the year, and move out in the spring. First-class farming land in South Dakota along the lines of the Chicago, Milwaukee & St. Paul Railway can now be bought at from $10 to $15 an acre. The creamery industry and stock-raising in South Dakota will greatly increase during 1897.

For further information address W. E. Powell, General Immigration Agent, 410 Old Colony Building, Chicago; or H. F. Hunter, Immigration Agent for South Dakota, 295 Dearborn Street, Chicago Illinois.