## THE OMAHA SUNDAY BEE MAGAZINE PAGE



This importance of the body is the ing." I also describe it as "the menfundamental principle in my system talization of the body." I have been explaining my system in lectures to of training which I call "brain culture through scientific body build- New York audiences

## Opera From the Heights

as they dusted away the crumbs from suppose the knows those on the same their noon sandwiches, "I've got real floor with her can't see the box and well acquainted with a lot of people doesn't consider us up above as real since the opera began."

"People in the next box, I suppose," yawned the other young woman.

"Nothing like it," declared Miss Fattershall. "Nettle White and I, we decided that we'd see what there really was in opera, so we got season seats in the front row, way up topin the bridge that the folks down below look at hard before they can distinguish it from the ceiling frescoes and then murmur 'Rully? Do people rully sit way up there?" "Believe me, it's fine! With our

glasses we can even see where Mrs. Tightwad's white satin train is getting soiled around the edges-and the gray streak in her hair. And if you've got a chart and human intelligence you can compare numbers with the boxes and take a look at all our best people. At least, the ones who come on your night. That's what I mean when I say I've got acquainted with a lot of 'em. "Not that I care so much about

their names. Ive grown interested my nature to be mean. in one fat old lady with wonderful white hair. It glitters like cake frostthe college boy next door. Does grandma attire herself in black velves and point lace? Not she!

THE LAST TIME.

"Lemme sec-last time it was pale so big that you'd think they grew on matter. trees! Why, Nettie and I got so exopera glasses.

in her appearance, but, I tell you, other girl changes dresses so often grandma removes the breath from the

"Yeup." Insisted Miss Fattershall.

"And you ought-a see the way the young men hang over her shoulder, still, most anybody'd hang around emeralds like those. They don't pay Miss Fattershall, exasperatedly. "Why half so much attention to the youngthe opera's fine."

66 OU know," said Miss Pearlie, woman who always sits next her. She Fattershall to the stenog- had some taste in clothes, I must say, rapher from across the hall but awful manners with her feet. I human beings. Mostly she crosses one knee over the other and twists her left foot around and braces it against the front wall of the box, as though to restrain herself by main force from jumping overboard. Or else she kicks off her slippers altogether. I only hope she doesn't forget and put her little tootsles on the rail some night!

"Some of our best people," continued Miss Fattershall, "are getting horribly thin on top! Not alone the men. The way women wear their hair nowadays, all plain and with parts to side or middle, makes them absolutely helpless. All those thin spots glaring up at you are awfully funny! Honest, when I see a fluffy girl with her locks puffed out over her ears and low at the back of her neck, making eyes at some adoring young man who is looking at her as if she were too good to be true, I want to lean over my railing and call down and dare her to show him

NOT SURE.

white hair. It glitters the care with the crowd in one box last night. The child is old chough to be firting with the crowd in one box last night. The child is old chough to be firting with the crowd in one box last night. The child is old chough to be first women all had gorgeous bunches of nowers and the men weren't even in dress suits. Nettie said they had spent all their money for the flowers and couldn't afford the rent for the blue chiffon over white satin, with suits, but I don't know. Maybe they fluffy ruffles of white tulie on the were so rich they could afford to be skirt. Honest! And a necklace of independent. It must be grand to be emeralds, set in diamonds, with stones wealthy enough so your clothes don't

"Then there's the man who has been cited the first time she were it trying bringing two girls alternately. One to decide whether they were emeralds of 'em, the prettiest one, has worn or sapphires, that we nearly lost the the same pale green dress each time, so it's plain to be seen that she hasn't "I like to see an old lady take pride any other for evening wear. grandma removes the breath from the her is by the size of the thin spot observer with her getups! She has where she parts her hair. You can because I like the girl in green".

Further on in this article I cite scientific principles and experiments that prove how exercising certain of the body develops corresonding areas of the brain. At the peginning let me call attention to the accompanying photographs showing exercises that are particularly useful in stimulating the mind while de veloping a supple and vigorous body.

It will be seen that these exer-cises consist largely of balancing oneself upon the head or upon the

upper part of the spine. These particular exercises have the effect of making the blood flow freely through the brain, stimulating all the mental faculties. The average person spends three quarters of every day sitting or standing, thus creating a congestion and stagnation of blood in the lower parts of the body

and a deficiency of it in the brain.

The mighty force of gravity is pulling constantly against your mind, if you do not exercise scientifically. employ gravity to stimulate the

Rheumatism, disordered circulation and other diseases caused by the accumulation of waste products in the body are primarily due to our ordinary standing and sitting positions. We get rid of them by balancing on the head, by limbering up the backbone and the joints and by rolling around freely in every di-

These exercises form part of one meries of twenty-nine that develop the whole body symmetrically. cidentally they cure obesity. Hard as they may look, it is surprising how quickly they can be learned, for each exercise makes the next one easier. A young housewife of my acquainance suffered severely from rheumatism and was greatly depressed by her household cares and the constant danger of losing her cook.

three months she mastered these exercises, got rid of her rheumatism, while her mental changed so completely that she look ed upon doing her own housework as a healthy and pleasant occupation. You must of course learn the easy preliminary exercises before doing

these hard ones. One of the most striking illustrations of the influence of the body over the brain is the relation between the hand and the centre of speech in the brain. Paul Broca, the great French surgeon, proved there is a definite locality in the brain which is the sole seat of our articulate speech. It is found in a limited area in the lower and posterior part of the third convolution, which is now named Broca's convolution. It is a tiny patch of gray matter situated in front of the tip of the ear.

This speech centre in the great majority of persons lies upon the left side of the brain and is the only one-sided centre in the body. Loss of speech accompanies rightsided paralysis in right-handed people, and the same affection accomhanded people. In other words, the

faculty of speech is located in the hemisphere of the brain which governs the hand that is most used, and side of the body from the hand most

Hand and speech, therefore, are physiologically connected. This remarkable fact brings us back to the very beginning of the faculty of expression in the human race. began by one personality longing to communicate with others, and the very first thing he did-and that every human being does still when endeavoring to communicate those whose physical speech he does know-was to make gestures with his best hand.

Gesture language, therefore, was are aware how much gesture language still continues in living use. It was the hand evolving out of the directing will an ever increasing subtlety of power that made possible the human brain. The hand devel-

It results from this anatomical condition that to-day the power of expressing oneself well and clearly in speech must be accompanied by an dequate use and development of the hands and hody. All parts of the brain which preside over voluntary movements are developed by muscu-

lar exercise. An interesting observation by Doctor Luys in his work, "The Brain," shows that after the loss of the use of a limb certain parts of the gray matter of the brain undergo atrophy due to inhibited action of the motor cells. If the loss of the use limb can injure the brain in this way we can see that its increased use within proper limits will promote the efficiency of the brain.

Muscles are in a most intimate and eculiar sense the organs of the will and I have found that by training flabby, weak muscles, a weak will is

Skill, endurance and perseverance may be called muscular virtues. Fatigue, caprice, ennui, restlessness, lack of control and polse may be

called muscular faults. The training, developing and strengthening of the will is the most important factor in school life. We begin with precise movements in balancing classes, then teach various technical steps leading up to a graceful standing and sitting posttion and also a reclining position with which to show the relaxation of the body. Standing well upon the feet is the basic exercise in will train-Then follow exercises for precise and co-ordinated movements of

the various muscle groups. The child who habitually leans backward on the heels is degenerating physically as well as mentally. He reveals an immobility that is not conducive to change or development of expression. He is, strange as it may appear to the unthinking, undermissing all will power and creating what is just as dangerous-an obstinate will-because there is no poise in the body. The child who is

trained to stand solidly on the foot, putting the weight on the ball of the foot with a reasonable flexibility of ankle movement, will always

more balanced mentally. Leg exercises have a decided value in the development of the will power. They constitute a fine cure for fidgets and tense states, and directly develop poise, control and psychophysical equilibrium.

One of the most important exercises is the forward balance. Polac and relax the body, then extend the hand and right arm in straight line in front of the body, slowly bend from the hip joint, place the right hand on the floor, then raise the hand from the floor, raise the left foot from the floor, stand balanced on the right hand for one minute. In my classes I insist upon each movement being immediately reversed so that the corresponding nerve centres of the brain hemi-sphere shall be equally stimulated. se intricate balancing move-nts call for the highest degree co-ordination between brain. nerves and muscles. I have found them a panacea for persons suffer-ing from spinal affections and for nervous and digestive disorders.

The exercises given in this course stimulate the brain and make it' easier for the blood to circulate there. The cause of balance is governed partly by the feeling of muscles, partly by the sense of sight and in part by the balancing organ

ear, the centre of equilibrium. The balancing exercises have a tremendous value and reveal in many instances the possible remedy some ataxias, paralysis and diseases (not organic) involving the loss of control of muscles and nerves. ess abnormal conditions they have the greatest value in stimulating clear thinking and capacity for mental work.

Variety and variability of movement is the keynote of this work. I teach rhythmical body movements to crease the power of expressing ourselves and so restore the motor cells of expression. This variability of bodily movement increases the potentiality of brain centres.

With Hands Linked Behind the Body, Draw the Left Foot Behind the Right, and Sink to the Floor Until the Forehead Touches It.

so develops flexibility, sweetness and melody in the human voice. Great pains should be taken with the sitting position. The hips should rest against the back of a chair, the small of the back as well as the hips and shoulders should touch it easily. The hip joint is a hinge, and we should lean forward from the hips, not allowing the body to sag at the

waist or double at the shoulders. Any child or grown person should be interested in the illustration of the delicid muscle of the arm as monstrating the power of the will. Any ordinary muscular man can readily lift at arms' length a fiftypound weight. The arm is about twenty inches long and is a lever which has its lifting adjustment about an inch from the point of rest at the shoulder joint, so that by well-known mechanical laws to lift fifty pounds weight with the hand fifty pounds weight with the hand requires a lifting force of 1,000 pounds at the fulerum.

From this it is evident that a muscle stimulated by vitality and controlled by the mind has a lifting force of 1,000 pounds and yet this same muscle removed from the body would not sustain a fifty-pound weight without being torn asunder. In the first place this lifting matter is subject to the will power. In the second case it is dead matter with contract of the second case it is dead matter with only a cohesive power.

The will acts upon the muscles, and the muscles in turn create new brain centres, with which the will may work. Thus the will creates the brain. For this reason it is essential to concentrate the will upon the exercises that are being performed.

A very interesting illustration of the connection between bodily activity and brain development was fur-

nished by Professor Elmer Gates, the

distinguished American scientist.' Weismann, the great German biolo-

gist, laid down a rule which, roughly

speaking, is that characteristics

time cannot be transmitted to his descendants. Weismann cut off the talls of mice for twenty-eight genera-tions, but the talls of the last genera-tion were as long as those of the first generation. Hence Weismann concluded that the acquired charac-teristic could not be transmitted from parent to offspring. Professor Gates saw that so far as the mice were concerned cutting off t'~ir talls was

This Helps You to Think Clearly.

acquired by an individual in his life-

not an acquired characteristic, but simply an accidental deformation. He then trained white mice to use their tails, compelling them to dis-tinguish between different weights pressures, touches, temperatures and currents of electricity. By this method the mice were compelled to use their tails, and this resulted in the development of new brain cells and the corresponding development of the tall in strength and activity. The fifth generation of these mice was born with talls two and one-half times as long as the tails of the first generation; the talls-were also much larger and much stronger and much more sensitive and active.

in other words, the characteristic of the animal was transmitted to the offspring whonever the parent had made an effort to distinguish certain activities or conditions relating to its self. In every case where the effort was not made the characteristic was not transmitted.

not transmitted.

Dogs trained from puppyhood to distinguish many shades and tones of color gave birth to young who were able, before any training had been given them, to distinguish many more colors than ordinary dogs ever could. Guinea pigs were trained to distinguish musical tones. This de-velopment was transmitted to the brain cells of the hearing region of the offspring of the guinea pigs and the prain cells of the guinea pigs and the brain cells of these young ones. were better developed at birth than the brain cells of ordinary guinea pigs are at maturity.

## Riding on Railways Is More Dangerous Than War

N his "Price of Inefficiency" Frank Koester shows that riding on railways is more dangerous than war. The loss of life by railroad accidents in the United States in the

as great as any country has ever suffered by war in the same period. In the daily battle of transporting itself about the city of New York, the population of the city is reduced by 350 killed and 2.700 injured every year. That is, of those who start out to ride on any given day, one will never return and seven will be brought back injured, the price of inefficient transportation. Copyright, 1914, by the Star Company. Great Britain Rights Reserved.

The cost to the transportation companies amounts to about \$2,500,-000 in damages and \$1,000,000 in le gal expenses, while to the public the cost is vastly greater, since of the damages they receive at least half is consumed in legal expenses. last ten years has been three times while the amount recovered amounts in no case to a very large propor-

The situation in New York is duplicated in more or less magnitude all over the country, both in a political sense and in the inefficiency

of operation. Due to carelessness of employes, faulty methods of operation, poor equipment, disregard of proper safe-

ty appliances, carelessness of the public fiself, negligence from begin-ning to end of all concerned and the final negligence of the public to place responsibility, the harvest of death, disaster and misery, the bur-dens of sickness and the suffering of those bereft and injured continue.

In railroad transportation the sit-uation is even more appalling. In 1910, 8.531 were killed and 102,075 injured, a total ranking with the great battles of history.

An important addition to the cas-

naities in the great number killed while trespassing on ratiroads, which has amounted to 50,000 killed and 55,000 injured in the past 11 years