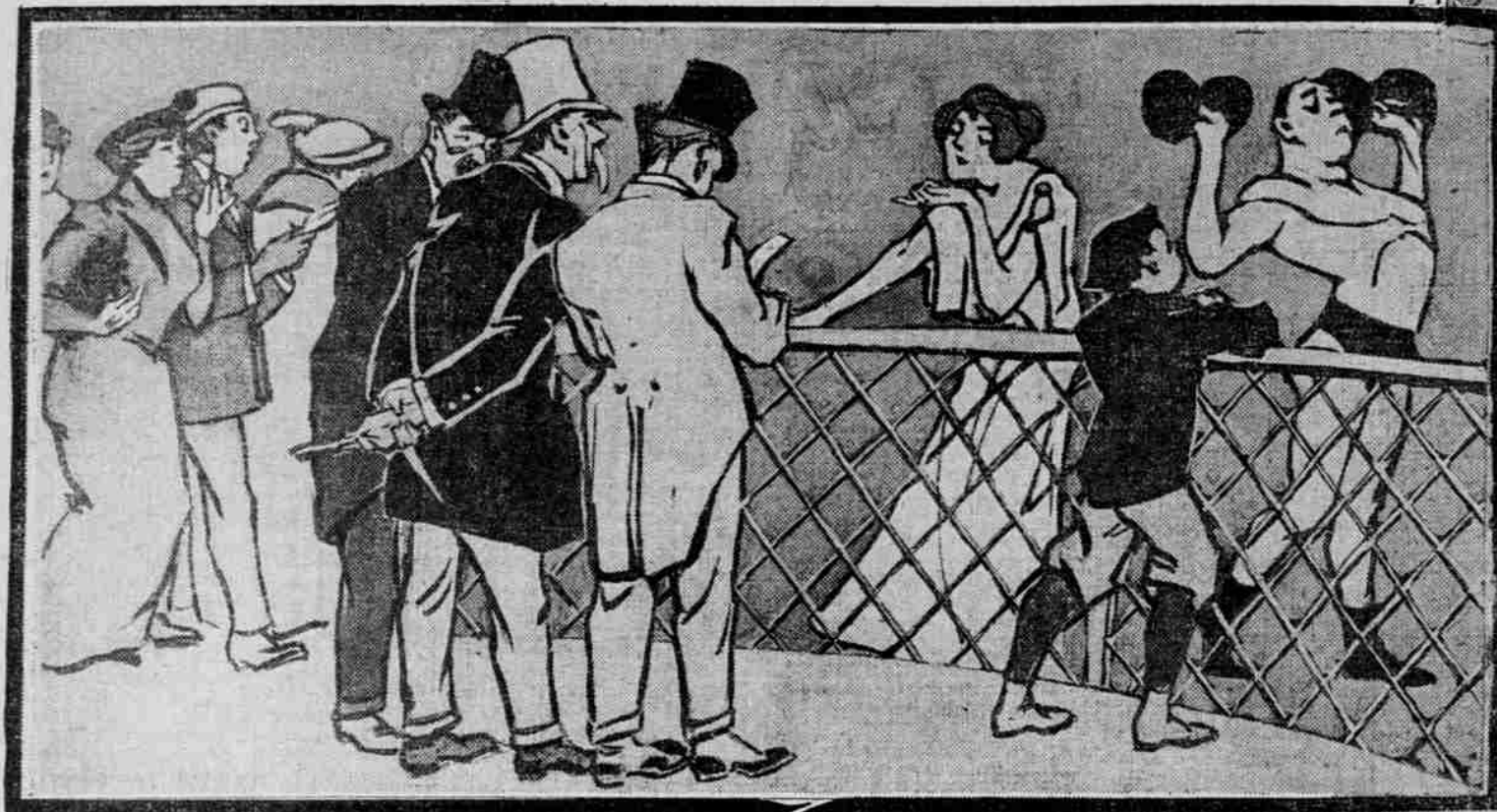


MARRIAGE BY TAPE MEASURE - by Rex Beach

*"The Fallacy of Eugenics" is Discussed
by Author of "The Spoilers."*



An Eugenic Display

EACH year in the great cities of the country horse shows, dog shows, cat shows and shows of various "livestock" are held; some are fashionable, others are not. They appeal to the devotees of the perfect horse, the perfect tabby, or to professional raisers of cattle and farmers interested in the blue-blooded Jersey cow. If you can imagine another sort of exhibit, it might be held annually, say in Madison Square Garden, New York City.

Beneath the flying Diana on the lower picture a great electric sign: "National Human Stock Show: Highest Types of Physical Perfection. Blue Ribbons to Winners. See the Candidates for Eugenic Marriages!" Within, in raised off enclosures, we might behold men, herculean of size, strutting about, gracefully posturing or manipulating dumbbells; women, handsome, Amazonian, reclining on couches a la Alma Tadema or seeking to attain the mysterious pose of the Venus of Milo. Crowds pass by, pausing to admire, making comments, critically examining the "points" of the "exhibits." The judges—a grim-faced, serious-minded board of eugenic doctors—occupy a stand. I do not know just what the social status of such a show will be—whether it will be as fashionable as the horse show or in the class of a Jersey cow or sheep exhibit. Conjure this show before you. I am not responsible for the suggestion. It has come from the eugenists.

If the suggestion for any human stock show is abhorrent and distasteful the eugenic plan for marriage between men and women on a basis of physical perfection is more so. A great deal has been written and said of late concerning the eugenic creed. It is

being promulgated by a National organization, has the support of men of science whose eminence lends dignity and weight to the propaganda and is without question influencing the public mind. The plan of the eugenists appeals to the pseudo-scientific, to the sentimental type of "reformer" and highbrow and that large class of human beings who, being somewhat unbalanced, go in hysterically for fads.

The extreme absurdity of many eugenic principles was demonstrated recently at the National convention for race betterment, at which a physician made the suggestion that annual shows be held of perfect types of human beings, with prizes or blue ribbons to be given to the winners. That the eugenic propaganda has not been without effect has been shown by the passage of a law in Wisconsin making a physical examination of both parents necessary to secure a license to wed and the presentation of a proposed bill along similar lines to the Legislature of Massachusetts.

While I believe in the attainment of physical well being and the improvement of the race, I cannot but oppose the entire eugenic plan of marriage. I do not first believe that it will result in an improvement of the race, but rather in degeneration. It cannot but vulgarize and make ignoble the marriage relation. Those who have considered the plan of the eugenists have probably done so only superficially. I believe the public should be enlightened concerning the basic fallacy of the movement. Its menace and absurdity.

The eugenists contend their purpose is to bring into the world perfect children and thus improve the race. To accomplish this they would make mar-

riage contingent upon physical perfection. What does this mean? They ignore the supreme attraction of love, the only legitimate basis for marriage. They place the highest relation of human life in a class with horse breeding. What should be primarily a union of minds, of sympathies and spiritual interests they make a legal union of bodies. Those who advocate these principles speak of course of mental and moral perfection as being desirable with physical perfection. The whole propaganda, however, reveals that the prime qualification for their "ideal marriage" is physical.

Without love the marriage of two people, however perfect physically and mentally, is revolting to our highest ideals.

Recently we have witnessed a singular example of the comic extremes to which such faddists will go. Announcing that they desire to experiment in the bringing of a perfect child into the world a board of eminent medical men, through a prominent medical magazine has offered prizes in a contest for a eugenic marriage. Candidates of both sexes have been invited from all parts of the country. They are to submit themselves to physical tests and the man and woman found most near the ideal of physical perfection are to wed. Each is to receive a prize of \$500. When it arrives the perfect baby is to receive an additional prize of \$500. At the time of my writing a score of young women have presented themselves.

I have said this spectacle is comic. It is also shocking and repugnant. I wish the women who discuss this movement at clubs and go to lectures would consider this aspect for a minute. Put

Looking Over the

away the highfalutin idea of a perfect race brought into being by the eugenists and consider marriage based upon measurements by tape and gymnastic tests with dumbbells. One of the young women candidates for the eugenic prize has been quoted as saying that she offered herself not for the prize but with the desire of becoming the mother of a perfect child.

I wonder how many women in the world have ever married with the premeditated, sole intention of becoming a mother? From what we know no such deliberate purpose inspires birds, bugs or bees in their romances—offspring is fortuitous. Nature but utilizes the attraction of sex which, among human beings and with higher evolution, has become transfigured into love. We can be sure that, as she always has, nature will take care of racial reproduction without any deliberate assistance on our part.

This regulation is automatic and wiser than perhaps any human regulation would be. During pioneer days in the West there were phenomenally big families, the children numbering from 12 to 16 in a family. As the West became populated and men were not so urgently needed the families automatically decreased in number, just as they have in the congested cities of the world and such countries as France. This is as it should be. Instead of trying to increase population, I believe the aim of life should be to decrease the number and increase efficiency. Quality instead of quantity is certainly the consummation of evolution. The highest purpose of marriage, in my opinion,

Family Tree.

is not to bring children into the world, but is an individual development and mutual help toward that end. To me, the bearing of children is the least important phase of marriage. The eugenists make it supreme.

Marriage is entered into too casually, too recklessly with many people nowadays. It should be made more difficult. It should not be possible for any two people to marry from mere passing fancy. While the eugenists are talking about raising the standard on a physical basis people should be really educated regarding the sacredness of such a relationship. The only basis for marriage is love. And love is above any qualifying code of the eugenists. People should marry for love alone. Married, their object should be to develop as individuals. Under most ideal conditions marriage is difficult. The domestic relations of two "perfect physical specimens" who have married because of their blood condition and muscle development are not pleasant to contemplate.

If we are to justify actions by results, what will be the probable outcome of marriages entered into on a basis of physical fitness? Perfect children? Possibly—in one case out of 10. It is recognized that the vitality, brilliance, even genius of children depends upon the emotional intensity of the parents who beget them. The appearance, blood conditions, even health of parents have not so much to do with the mentality of the child as their own mentally sympathetic state. The eugen-

ists ignore this attraction. The mental fibre of children born of a physical union is likely to be coarse. It cannot be otherwise.

Men and women fall in love involuntarily. There is no deliberate purpose in a great passion. Love comes as mysteriously as the storm and is impelled to one another; theirs is a spontaneous sympathy. Nature inspires a woman to select the man who is most suited to mate with her. Nature reciprocally inspires the man. This inevitable attraction may not seem "artificial" to the eugenists. But it is a better guide to parenthood than tape measurements and blood tests.

What is the secret of happy marriage, of successful parenthood, anyway? These wise doctors and learned teachers of race betterment advocate the mating of people who are equally perfect, of similar mental caliber. In life like does not usually mate with like. Inequality is really the prime secret of a happy marriage.

No, I'm not raising any question regarding suffrage, for I believe that intelligent women should have the vote if they want it. But in the marriage relation there can be no equality in like characteristics—if the marriage is to be successful. The man must be stronger and the woman weaker; or the woman stronger and the man weaker. Two evenly balanced persons never can get along; they must con-

stantly clash. One is bound to have ascendancy somehow. Generally, I think the man should qualify in strength and executive ability; the woman in beauty and idealism of mind.

Rather than encourage the eugenic movement, as many claim, I believe the greater freedom allowed woman in her revolt will discourage any tendency toward a conformance to the eugenic scheme. The more independent women become the more inclined will they be to follow their natural instincts and to resent any arbitrary and sordid powers of submitting themselves to "examinations" to qualify for wedlock.

What woman with self respect could so demean herself as to submit to a "blood test" as a qualification for marriage? Personally, I do not think people will ever stand for any such impertinent invasion of their rights.

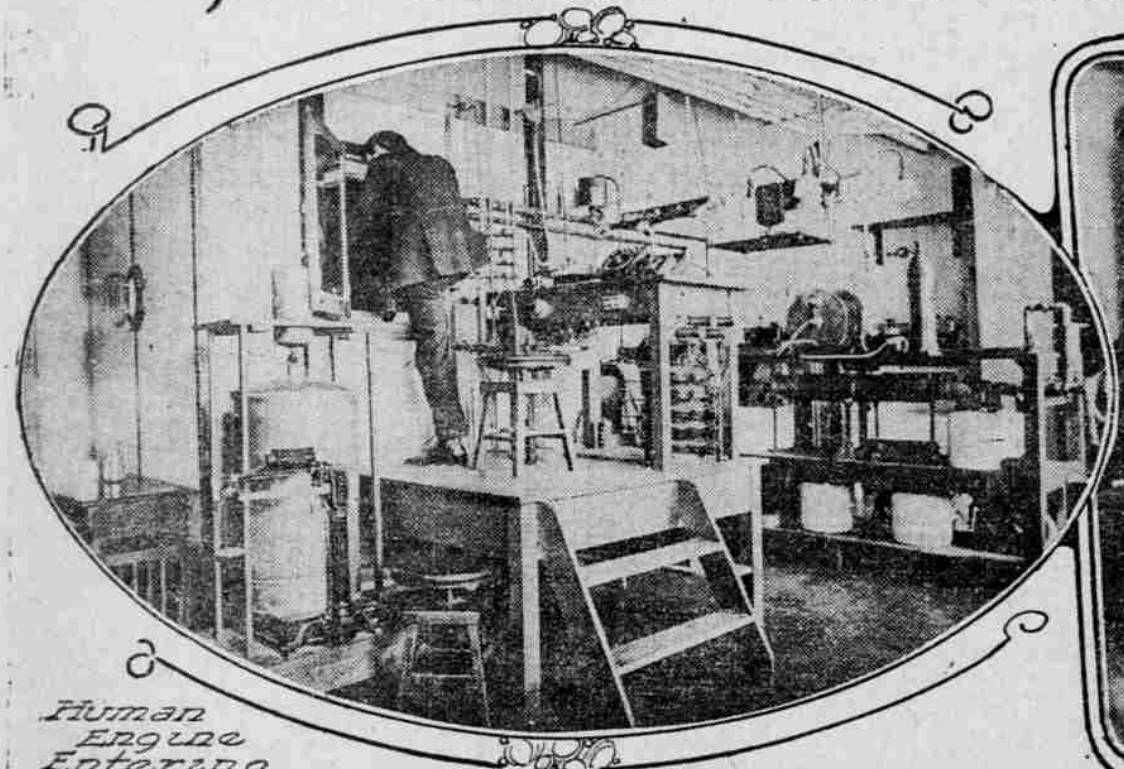
Inequality of characteristics goes for success in marriage, so I believe also that physical inequality tends to the best results. Some of the finest children, as a matter of fact, are born of physically defective parents. There is the old story of the woman who went about trying to have a beautiful child. To effect her ambition she thought "beautiful things," talked about beautiful subjects and gazed at beautiful pictures as a preparation for the coming child. A monster was born!

From London recently came reports of a eugenic marriage between a Mr.

(Continued on Page 6.)

An Intricate Bit of Machinery Is The Human Engine

How Experts are Studying it to Learn Exact Fuel Requirements and wastes.



Human Engine Entering Respiration Calorimeter for Observation and Experiment

BY RICHARD HAMILTON BYRD, JUST because the human body is recognized to be an engine, and the most highly sensitized and useful engine in existence, it is being studied by exact scientific methods in order to determine its exact fuel requirements and wastes, even more closely than the most complicated mechanical engine. When the engineer or manufacturer wants to determine the efficiency of a machine he analyzes his coal and studies its heating value or energy, the loss in transmission, etc. So science now has a method of determining the exact amount of energy produced in the human body by various kinds of food, the

amount which is made available for heating and maintaining the human machine, for working it, and what is lost.

For several years the Department of Agriculture has had in operation what is known as a respiration calorimeter, with which exhaustive experiments with human beings have been made, and which is so exact in its records that from the time a man enters a small, tightly-enclosed cell, until he emerges, a period perhaps of 10 days, literally every move he makes is recorded with absolute fidelity. The apparatus is simply a small room, but so completely isolated and impervious to outside con-

ditions, and so delicately arranged as to record through electrical and other apparatus, the slightest rise in temperature, of even one-hundredth of a degree, which may be caused by the heat generated by the man on the inside getting up from his chair or stretching out his arms.

The amount of heat consumed and given off by the body under different conditions can thus be determined with exactness, and is now shown to vary from 60 to 600 calories, or heat units, per hour. A calorie is the amount of heat which would raise the temperature of one pound of water 4 degrees Fahrenheit. During the period of deep

sleep it has been found that the human body gives off heat at the rate of 60 to 75 calories per hour or enough to raise the temperature of 1.3 to 1.7 pounds of water from freezing to boiling.

When the man rises and sits quietly the hourly rate increases to 160 to 115 calories; when he works hard on a stationary bicycle, which is part of the equipment of the calorimeter, the heat given off from his body reaches as much as 600 calories an hour. With this apparatus it is possible, therefore, to get at the exact fuel value of any kind of food, a matter which is the subject of much concern at this time on account of the rising prices of most of our staple food products.

The subject with whom the experiment is being conducted is in fact a prisoner, as he never leaves his little room until the test is completed; nevertheless his lot is not a hard one. He eats, drinks and sleeps in comfort, reads or does other mental work, may exert himself to the utmost on his "home-trainer" bicycle, can see his co-laborers on the outside through a window and may converse with them or with his friends through a telephone.

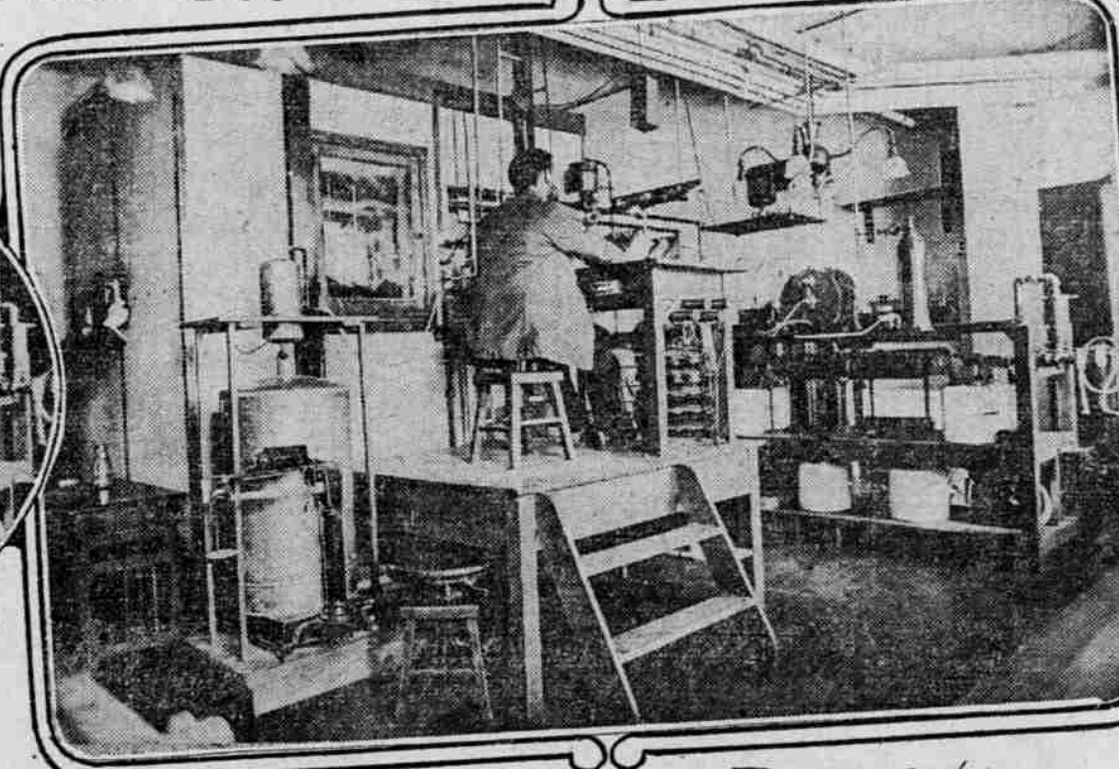
The exhaustive character of this observation of every minute's history of the operations of the human body may be realized when it is stated that

the entire time of 16 men is required to carry on experiments properly with one man inside the calorimeter. The experiments must continue day and night, the day force of workers on the outside of the room being relieved by a night force.

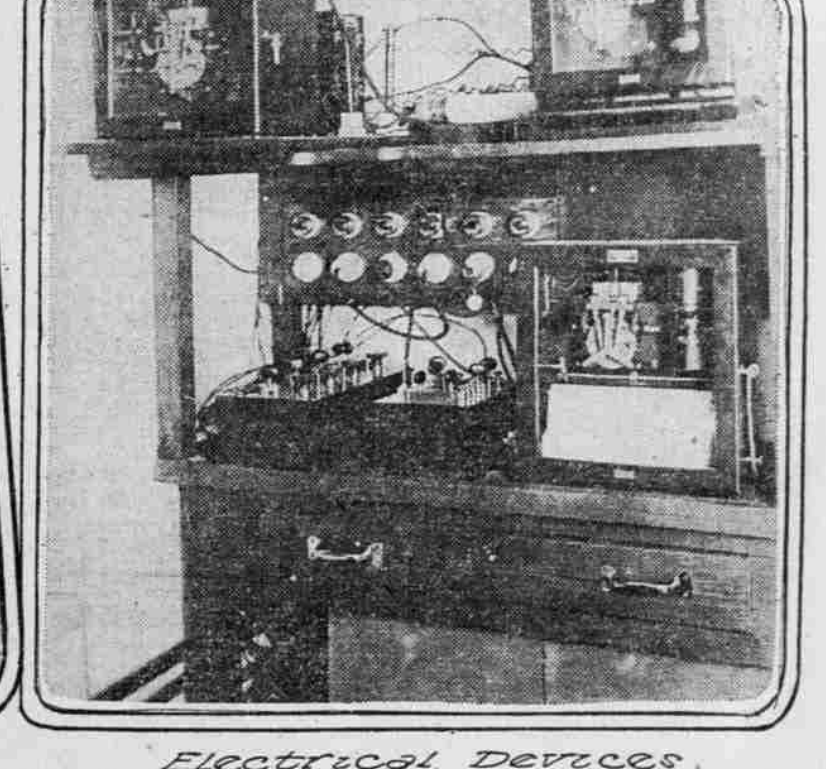
Compared to the activities of the force engaged in operating the calorimeter, busy almost every minute of the day and night, regulating and recording temperatures, weighing food, determining and measuring humidity and measuring the various gases and emanations given off by the body of the man inside—compared with this, the duties of the watchful trained nurse are about as onerous as those

of the village constable compared with the metropolitan policeman at a downtown street crossing.

The calorimeter is also being used by the Government to show the changes which occur in the ripening of various kinds of foods. For instance, a bunch of bananas in changing from the greenish-yellow to the golden ripe stage gives off a large amount of heat or energy, varying of course under different conditions of heat or cold. The value of these studies in the changes which fruits and other food stuffs undergo in the course of ripening or storage is claimed by the scientists of the Department of Agriculture to be of great importance.



Respiration Calorimeter



Electrical Devices Used for Recording and Controlling Temperature