

Eager TO BE Parents OF THE Eugenic Baby.

Some of the Young Men and Women Who Are Willing to Marry Each Other to Assist in the Experiment of Scientifically Breeding Better Human Beings

THE eugenic marriage prizes announced in this newspaper have already excited keen interest among our readers throughout the country and an evident desire to assist in carrying out the plans of science.

The Medical Review of Reviews of New York, acting on behalf of a committee of well-known scientists and social workers, has offered prizes to the eugenic ally perfect man and woman who will marry after they have been approved by the committee.

A prize of \$500 will be given to the ideal man and woman when they marry and a further prize of \$500 when their first baby is born.

This newspaper will gladly receive photographs of all young men and women who desire to compete for these prizes. Photographs should be accompanied by names, addresses, physical measurements, weight, condition of health, health of ancestors on both sides, and any other information the parties may desire to give. Photographs and information will be turned over to the committee of scientists.

The committee regrets that it is quite unable to return photographs on account of the great number sent in.

Those who expect to win the prizes should be in perfect health, of attractive appearance and good physical proportions. They should be prepared to show that all their ancestors for at least two generations past have been similarly blessed by nature. They must be willing to answer all questions put to them by the committee.

The committee can only give the prizes to a man and woman who are perfectly willing to marry one another.

Already we have received large numbers of letters from handsome young men and women who wish to aid in this scientific plan to improve the race. The photographs of several of them are reproduced on this page. The names of the young women are withheld for the present, in order that they may not be subjected to inconvenient publicity. Communications intended for them will be received and turned over to the committee.

Eugenic science is now engaging the attention of the best men in the medical and other scientific fields who are impressed by the widespread evidences of degeneracy among the population, by the growth of feeble-mindedness, pauperism and crime, and by the alarming decrease of vitality shown among the most useful members of the community after middle age.

It is asserted that by wisely regulated eugenic marriages we could eliminate many of these defects in future generations, remedy the greatest miseries of society and create a better race. A large mass of facts has already been accumulated by eugenic science, showing how certain defects are perpetuated by unwise marriages and how fine qualities are transmitted to children by eugenic marriages.

Most of us know in a vague way that certain family characteristics are inherited. We know, for instance, that one family is remarkable for tall men and that many members of another family die in early middle age of apoplexy. But few people know anything about the laws by which these characteristics are handed down.

The science of heredity, which is bound up with eugenics, has worked out the exact manner in which some of our most important characteristics, such as color of hair, eyes, etc., are handed down. Every man is made up of what are called unit characters inherited from his ancestors. These characters are independent of one another, and are combined in a sort of mosaic. A man may inherit many characters from one ancestor or only one character. He is not strictly speaking made up from his parents but from the ancestral germ cells from which those parents were created. Hence he may be very unlike his parents, but he must be like some of his ancestors.

In every germ cell there are elements called "determiners," which determine the subsequent development of all the organs and characteristics of the offspring. These determiners are contained in minute granules in the centre of the cell called "chromosomes." The male and female cells play an equal part in carrying determiners.

But if determiners from the male were added to determiners from the female in fertilization, the number of determiners would double at each generation. To avoid this nature eliminates half the chromosomes from each germ cell before it unites with another germ cell in fertilization.

The chromosomes, the number of each being a determinant leading to the same trait, or only the chromosome from one parent may have it. When two determiners produce the same trait, the child's trait is said to be duplex. When only one determinant produces a trait, the child is simplex. Thus when a man from a family showing musical ability marries a woman from a family without that trait, the children will be simplex as far as that quality is concerned.

Traits are sometimes due to the presence of a certain determiner in the germ cell and sometimes to the absence. Thus brown eyes are due to the presence of a determiner to strong coloring and gray eyes to the absence of it.

If both parents are simplex in a character, so that they produce an equal number of germ cells with and without the character, then in a large number of offspring one in four will have the character duplex; two in four simplex, and one in four will not have the character at all (nulliplex).

Difference in sex is due to the fact that some of the cells of the male have an odd chromosome called an X chromosome. When this kind of cell enters into union with another germ cell, the resulting offspring in the female. It now appears to be entirely a matter of accident in the human race whether a male or female child develops and beyond the power of science to control the result.

Most of us have had occasion to notice striking peculiarities that have occurred in several generations of the same family. There are such remarkable hereditary peculiarities as extra toes, webbed fingers and odd-colored eyes.

It is very well established that the tendency to have twins runs in families. This tendency, if it were considered desirable, might be cultivated by selective marriages. It has been cultivated even among some species of domestic animals, which originally had only one young at a time.

Professor C. B. Davenport, of the Carnegie Institution, states that the Dorset race of sheep is characterized by a tendency to bear twins. Breeders select sheep of twin breeding families to breed from and, consequently, this characteristic, very useful among food animals, is becoming more and more common.

There are many cases of families, well-known in public life and society, who show the twinning tendency. Mrs. Ogden Mills, the prominent New York society leader, is a twin, her sister being Mrs. Cavendish Bentinck, of London. Mrs. Mills has had twin daughters, who are now the Countess of Granard and Mrs. Henry Carnegie Phipps.

It is evident that the twinning capacity is hereditary in Mrs. Mills's family and there is the further peculiarity that the twins are usually girls.

Very curious results arise from the rule that a trait may be due to the presence of a determiner in the germ cell or to the absence of it. For instance, long hair in Angora goats, sheep or guinea pigs is not due to a factor producing long hair, but rather to the absence of the determiner that stops growth in short-haired animals. One can only conclude whether a character is due to a determiner or to its absence by noting the effects of breeding from individuals with the same trait. If all offspring are like the parents in respect to a trait, the trait is probably a negative one. But if the offspring are very diverse, the trait is probably due to a positive determiner and the germ cells of the parents are of two kinds; some with and some without the determiner.

We are dependent on internal forces checking growth for all that makes us human. For instance, if there were no check to bodily growth, we should grow out of all human resemblance. If there were no check to the development of our stomachs, we should be nothing but vast stomachs, eating up all the food on earth.

Curious to say, a valuable quality in a man may be due to the absence of normal determiners in his heredity. It is pretty well established that genius in many cases is associated with the absence of normal determiners. The absence of these permits the abnormal development of some one trait.

The science of heredity as sketched here involves very intricate mathematical calculations and it is rarely that all the factors required can be known in studying human beings. Nevertheless, the science is able to forecast certain probabilities with reasonable certainty.

Thus it can say that the marriage of two persons with a serious defect will, in all reasonable probability produce all defective offspring; that the marriage of a defective of a not very bad type with a normal person will produce mainly normal offspring; that the marriage of two persons of normal stock will produce all normal offspring and so on.

There is always a possibility that the defect of an ancestor may be carried by the germ cells but the more generations that have passed without its appearance the more improbable does that appearance become.

Eugenic science teaches that no man having a serious defect in his heredity should marry a woman with the same defect. If he marries a normal woman the defect will disappear in some of his descendants at least and if each generation obeys the same eugenic rule, the defect will in time disappear entirely.

To avoid the perpetuation of defects we should encourage persons of families widely separated by distance and ancestry to marry. It is better for a man born in New York to marry a girl born in California than a girl born in New York.

The most serious hereditary ailments known in this country are traceable to small country communities, where people have married others of the same an-

The progenitor of this tribe was one Ben Ishmael, who was in Kentucky in 1790, and later went to Indiana. His three sons married three sisters from a pauper family. Pauperism is recognized as a hereditary disease by eugenic science.

They had nineteen children that survived to adult life, sixty grandchildren and thirty great-grandchildren living in 1888.

The Ishmaelites have been in the almshouses, the house of refuge, the woman's reformatory, the penitentiaries and have received continuous aid from the townships. They intermarry regularly with other defectives. In their family are murderers and criminals of every class. They are generally diseased. The children die young. They live by petty stealing, begging and ash-gathering. With all their faults they are not alcoholic.

From this case we see that one defective man may in time leave an enormous burden upon the community. The evil that men do lives after them, but the

Miss Anna S., of Philadelphia (and Two Other Photographs of This Attractive Applicant for Eugenic Honors Are Shown in the Right Hand Column of This Page.)



Harry N. Bright, of the Army.



Miss Edna L. of Long Island.



MISS ANNA S. IN TRAINED NURSE UNIFORM



MISS ANNA S. IN BATHING COSTUME



Miss Rose E., of New York.

shown by the old families of Kentucky are largely traceable to John Preston, of Londonderry, Ireland, who settled there in the eighteenth century. It has

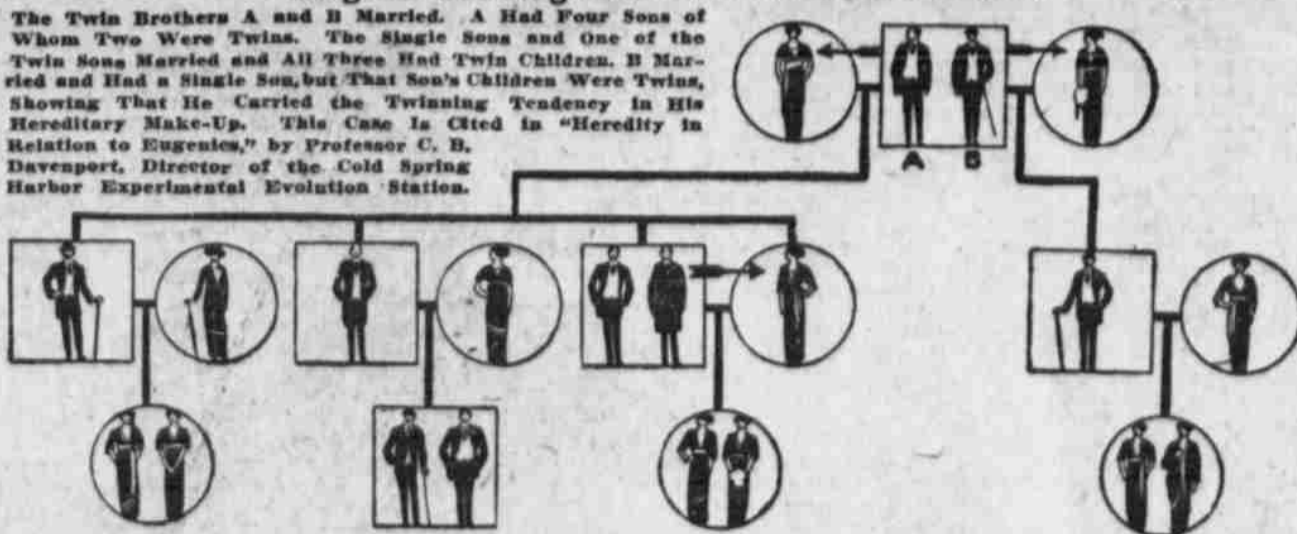
already been shown in these columns how one New England woman of the seventeenth century, Elizabeth Tuttle, has left no less than thirty-one descendants of the first importance in American public life, including two Presidents.

These cases are very important as showing that one person, possessing fine mental or physical qualities, may by a suitable eugenic marriage, transmit these qualities to scores of descendants in a few generations and thus be the means of materially improving the whole nation.

Those who feel that they have beauty, talent and other fine qualities are now urged to transmit them to posterity and save them to the world. They are asked to do so under the vigilant eyes of science and under conditions that will be extremely instructive to the whole world.

All readers of this page—any man or any woman—who would like to be selected as the husband or the wife in the eugenic marriage may send in a photograph, with name and address and brief description of their condition of health and such other facts as they may desire to state. This should be mailed to EUGENIC MARRIAGE, P. O. BOX 208, NEW YORK CITY.

Diagram Showing How Twins Run in Families.



cestry for several generations, thus aggravating the defect. Dr. Alexander Graham Bell, the distinguished scientist and inventor of the telephone, finds that the very numerous deaf mutes of Martha's Vineyard, Mass., and other groups of deaf mutes who have never been near Martha's Vineyard, "trace up" to the blood of James Skiff.

A genealogist has traced the "bleeder's disease" from a man named Hannant, who came from Norfolk, England, whose progeny settled in Sullivan County, New Hampshire, and created there a colony of bleeders. This colony, by emigration, has started new colonies in Minnesota, South Dakota and California. Even students of crime have traced the disturbing element of a large area to a single focal point. The notorious Jukes family have been traced back to a man named Max living in Central New York, in the early part of the Nineteenth Century, whose defective and criminal descendants have increased by thousands and are now spread all over the Eastern and Middle States.

The extraordinary collection of criminals and degenerates known as "The Tribe of Ishmael" of Central Indiana, can all be traced back to a single individual.

other statement of the poet that the good they do dies with them is not correct or scientific.

It is equally possible to trace the good qualities that have been distributed from one individual throughout the country. The original Herreshoff, who settled in Bristol, R. I., had a remarkable mechanical genius, which has shown itself in his descendants, who have built the beautiful yachts that have enabled us to hold the America's Cup year after year in spite of all England's efforts to recapture it.

In four generations the Herreshoffs have produced nine boat builders of extraordinary ability, showing clearly that this kind of talent is inherited. In the youngest generation, which consists only of children, one, a girl of fourteen, has shown marked boat-building ability. Eight other members of the family have shown mechanical talent apart from boat building, and five have been clever musicians.

The extraordinary ability that marked the Lee family from the earliest days of Colonial Virginia down to Gen. Robert E. Lee, is traceable to the original settler, Richard Lee. It is believed that the importance which Virginia assumed in the revolutionary period was principally due to the great numbers of descendants which this man left.

The vigorous physique and other fine qualities

The Stupid Mistakes Many Inventors Make

IF only half of the new inventions which are constantly coming into use really did well the things they were intended to do, this world would be a far more efficient place to live, work and play in than it now is. But the fact remains that inventors are patenting and manufacturing plagues on the market every year thousands of devices which lack practical utility in the most fundamental particulars.

Whether this is due to inventors undertaking to evolve things with which they have had no practical experience or to some other cause is still to be explained, but the fact remains that many of their attempts

to supply us with useful things are little short of ridiculous in the way they fail to achieve their purpose.

You will find in many homes large wash pitchers of blue enameled sheet steel, which are popular because they are likely to prove cheaper in the end than three or four of china. Now, the handle on these pitchers is of such shape and so placed that it strains one's wrists to use the pitcher when the latter is full. The accompanying basin of the same material is an unconscious discovery of the theoretically correct curve for turbine blades—for water poured in at the centre at maximum velocity emerges all around the rim at minimum rate. However useful this

principle may be in a turbine, it seriously interferes with the efficiency of a wash bowl.

Another inventor's stupidity is revealed in a gallon enameled sheet-iron pot, which has its handle of circular cross-section and outline fixed as near as possible to the upper rim, so that when the pot is full of boiling water one is sure of being scalded when lifting it with one hand without a "holder."

Look at your china teapot. Nine times out of ten the tea, instead of pouring from the spout, runs down the underside and dribbles all over the table.

An expensive cut-glass syrup jug shows an equally serious defect. The

silver lid, which is supposed to cut off the golden stream, falls completely in this mission and is always sticky outside.

The architects plan houses with insufficient space for bedsteads and tables, doors that open the wrong way, and closets that necessitate twice as many steps to reach them as should be necessary. The tool makers turn out axes that stick in the tree and hammers that are badly balanced; the machine builder makes machines that have to be taken apart in order to get out the piece that needs replacing or adjusting most frequently, or in which the "breaking piece" is the most expensive part.