

All the seeds were placed under the soil and put as nearly as possible under the same conditions. Whenever the weather was dry, they were watered twice every day. Five species germinated twice as many seed when planted pappus end up as the same species did when planted pappus end down.

This at least suggests a reason for the inversion of the ovule in these and many other seeds. By assuming the anatropous form, the seeds in this order are able to bring their hypocotyl near the opening at the base of the akene, and at the same time secure advantages to themselves in the process of germination. I cannot help but believe that these adaptations are a factor in making the Order Compositæ the largest of the orders of flowering plants, in the number of its species as well as in the great abundance of individuals in some of its species.

WOMAN'S WORK FOR WAGES.

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SOCIAL science has few more important problems than the conditions and effects of the earning of wages by women. Some sanguine advocates of women's rights apparently do not see that there are grave perils attending the enlargement of industrial activities on the part of the natural mistress of the home. They hail with rapture unmixed with foreboding the mere fact that the former "slaves of men" are becoming independent of the lords of creation. That access to new employments has its bright side there can be no reasonable doubt. There is a physical gain if the work is confined within certain limits and is adapted to the frame and forces of the sister toiler. Regular labor in sunny and well-ventilated rooms, or even in the open fields, is far better for health than idleness and husband-trapping. Intellectually, the sphere of mental life is vastly enlarged by the modern diversity of employment. There are domestic and social advantages in being able to wait and select a husband rather than take up the first thing in the shape of a man who offers a secure living. The economical advantage is so apparent that it needs nothing more than mention. At first sight all that a girl earns is clear gain, and is an absolute addition to the income of the family. In many occupations the dexterity, deftness, and honesty of female helpers have proved their superior value. As nurses, physicians of women and children, matrons of institutions requiring the presence of ladies, their gentleness and insight have been an untold blessing. These advantages are so real and great that any modifications of the present tendency to widen the industrial sphere of woman must take them into the account.

But there is also a very dark side to this subject. Passing the dangers of imposing labor prematurely on young girls, consider the indirect effects of feminine competition in some lines. That which we first see is a positive addition to family revenue. But later we discover that girls are taking the places of men at lower rates. This often means that the natural head and bread-winner is out of work or is receiving the woman's rate. The girl has herself to support, and that only in part. The man must support at least four persons. What must be the effect on domestic life? That which is actually observed: the husband and father at home while the daughter or wife is in the factory earning the living. Marriages are diminished, and among those most suitable for parents there are fewer births. A recent French economist of high repute gravely declares that the State ought to support and educate foundlings and orphans because the better members of society either cannot or will not keep up the population. What must be the results of propagating a human stock with such pedigrees? Ask the Kentucky horse-breeders. Think of the disorder of households where the normal conditions are reversed, the wife being in field or shop. Dr. Bushnell wrote about a "a reform against nature." It is against civilized human nature to throw the burdens of procuring sustenance upon those who have all they can endure in bearing, nursing, and starting the education of children. That cannot be a good tendency, economically or morally, which tends to extinguish a higher race. Herbert Spencer, in his pages on the *status* of women, gives abundant illustra-

tions of the law that the imposition of bread-winning on women belongs with savage conditions.

What can be done to secure the advantages of women's work for wages and avoid the perils? There are natural forces which counteract the momentum of these evils. Fortunately it is the disposition of most women to have a home of their own. This inclination, deep as human life and old as history, removes much female competition. But unconscious forces need to be supplemented by foresight, prudence, and philosophy. Biology, as De Greef teaches, is not sociology. There is a physical law of "must" and a moral law of "may" and "ought." Women should be taught that she who works for less than normal wages in order to get "pin money" is the foe of her kind, and is undermining the foundations of economic and domestic welfare. This conviction, once generally diffused, will create trade-unions. These unions, because they are human, have done many foolish and wicked deeds. But they never did a more foolish or wicked deed than they have done who taught that unlimited work of women, at any price they could get, was an unmixed good. If women unite and demand the normal rate of wages then it will be found out whether it is really profitable to hire them. If their peculiar gifts give them superiority they will retain their places at the proper rate. If men are really more fit for the places, they will be preferred. Thus this social disease might be healed. To let it alone is to let a cancer alone, or permit incipient consumption or germs of cholera to have free-course. To take hold of the evil with will and unity is to cure it. Thus alone will young men be able to marry at a suitable age, and young women will generally find their most congenial and happy places as mothers and educators and home-makers. There is sufficient earning force in men without forcing children to eat scraps of bread and cake out of scavenger barrels and without compelling women to exhaust their energies in field and factory.

HEREDITY.

BY JULIA BROWN STRODE.

ALL men are created free and equal, says that famous document the Declaration of Independence, and, in a remote and abstract sense, it may be true; but, all in all, we are bound by a thousand chains, and equality is unknown. Fetters have been imposed upon us by our forefathers; limitations have been set us by our ancestors, which it will take years of study and self-culture to overcome. And as to equality, this man may average well in one particular with his fellow-men, but is totally deficient in another respect, and no two men are alike. Many of the lower tribes in Africa, says Stanley, resemble the ape more nearly than human beings. Either these lower classes have sprung from a brute ancestry, or their lives and environments have continued such that they have taken on the dispositions and appearance of the higher animals with which they have been surrounded, and have transmitted them to their progeny. Whether we accept the theory of evolution or not, the fact remains the same, i.e., that many savage tribes are more allied to animals than to civilized man. But, whatever our parentage is, or may have been, true worth is recognized and acknowledged wherever it may be found.

The problem of how to intensify the higher attributes of human nature and obliterate the unworthy is the problem of the age. The old theory that children were sent into the world, figuratively speaking, mere pieces of blank paper was long ago exploded. The paper is all written, traced, and re traced. The child has as decided a character, though not one so easily discernable, when it enters the world as when it leaves it. As genius, disease, peculiarities of appearance often transmit themselves from parent to children, so do villainy, crime, and moral depravity.

Here is a child with the idiosyncracies, the peculiar mannerisms, of his great-grandfather dead before he was born. I know of a boy whose attitudes and voice are like no other member of his family, but that of an uncle whom he never saw. Often an individual returning to his home town, from which he has for years been absent, readily determines to what families the new-born generation belongs.