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CELLULAR GENESIS EXPLAINS HEREDITY.

BY T. B. WAKEMAN.

IN *The Open Court* of July 6, Professor George J. Romanes contrasts very clearly the *Pangensis* of Darwin with the *Germ-genesis* of Weismann—they being the two noteworthy theories as to the all-important fact of heredity. Darwin supposed that all (*pan*) parts of the completed organism are represented by *gemmules* in the formative elements of the new individual. Weismann supposed that the generative and formative element is the *germ-plasm* out of which the new individual grows, but which *germ-plasm* remains, as to its generative function largely independent of such individual, but so involved that its death involves the death of both germ and body-cells. He looks at the *germ* or beginning of the individual to find the explanation of all of the intermediate stages of growth, up to the completed individual; while Darwin seeks to find the explanation in elements which he imagines to come from and to represent each part of the completed organism. Upon reading Darwin's *Pangensis*, I put out under the name of "CELLULAR GENESIS" a supplemental hypothesis (first in the *New York World*, 1868) which seems to throw light upon this most interesting subject.

Why not, I asked, keep our eyes not only on the germ or the completed organism, but also on the *intermediate* processes and stages of growth, so as to see just *how* the complex organism results? This would be following Goethe's admonition; that instead of so much experiment and torture of nature we would do better to lovingly watch her processes. Her "open secrets" he tells us, like the love-secrets of flowers open to the sun, are always waiting for the *open* eye. Let us then try this better way, while the terrible Weismann amputates the tails of innumerable mice, and the followers of Darwin and Herbert Spencer vainly hunt for their metaphysical *gemmules*, or "physiological units."

Some of the bottom facts of biology are plain to every one—such as these:

All organisms, whether protists, plants or animals, from the simple to the most complex, are simply cell growths—multiplication of cells—"a congeries of cells,"—which are modified or varied repetitions of the *germ-cell* of the organism. Growth is, then, simply a

process of cellular-genesis. Now, whether this cell growth comes about by budding, extension, cleavage or division, or otherwise,—the material form and functions of the new cells are the same or similar to those of the parent cells out of which they were formed, i. e. grew, supposing that they have the same environment and the same nutrition. Thus the simple-celled *protozoa* and *protophytes*, and even the simpler *metazoa*, have, as Weismann has so well explained, the natural gift of immortality. They simply increase, by nourishment and division, into like cells, which also divide,—but never *naturally* die. These simple lives have no occasion for either marriage or death; they are parthenogenetic, and only a continuous birth,—the same in form and function for countless ages, just as we now find them, or with slight variations.

But how is it with the higher and complex organisms? We find with them that an immense division of labor has *compelled* the cell growths into varied but always integrating organs and functions, in order to meet an ever increasing complexity of environment. Under these circumstances the great point is the power of variation in order to meet and not to be overcome by the ever varying and complex environment. That is *how*, as Weismann points out, *Natural Selection* preserved, and so introduced, marriage and death into this higher world; for they are the principal means by which the higher *species*, or "forms" (instead of the *individuals*, as among uni-cellular organisms) remain immortal, while the individuals vary and die in order to sustain the *family* life.

The questions about heredity arise out of this varying complexity of higher organisms. For the unicellular or simple organisms being formed out of the same material and in the same way, are naturally immortal and *hereditary*, and as much alike as the peas in a pod. But when we look at the higher species, which increase by the marriage (*amphimixis*), and the death of its individuals, we may see *how* their germ-cells and nutrient compel them to grow, always alike (as species) yet never individually the same. This, in a word, results from the *form-power* of the cells, and the repetition of the order in which they are nourished; to wit:

1. For, when the female cell or germ in fertilisation (*amphimixis*) is fused with the male, or mating cell,

which is different and yet so alike that its slightly varying protoplasm assimilates with it and forms a new fertilised germ, we have the *condition* of variation. Because then this fertile germ thus doubly formed, must out of a similar food (blood or sap) and under a like environment, beget cells repeating *nearly* itself, but not like either of the two original cells which fused (*amphimixed*) to form it. Its form will be between those two, and with mixed characteristics of each. The cellular-genesis of the compounded or fertilised germ must and does, as all observation shows, give cells thus repeating *conjointly* both of its formative cells—their properties and functions, in its succeeding growth. All this, we repeat, is the fact disclosed by common observation—for instance in plants, animals, and even in family portraits.

2. But suppose, again, as the fact is, that the two cells which fused to form the fertilised germ or seed-cell, are themselves the resultant cells deposited and left at the end of a long and complex process of cellular growth of the highly differentiated parental organism,—like a tree or a man?

And suppose also, as the fact is, that this fertilised germ is in a similar environment and is surrounded and fed by the highly variant food-protoplasms (blood or sap) similar to that nourishment out of which the highly complex organisms, from which the two original male and female cells which formed this fertilised germ, grew; what then? Certainly, this fertilised germ and its succeeding cells will, and in fact do, take up and appropriate the materials of its nutrition from the common blood or sap, in the same way, and therefore in the same *order*, and therefore in the same complexity, and so as to produce the same organs, variety of form, and function, that belonged to the original organisms from which the two *original* cells came and which fused to form the fertilised germ of the individual, out of which all of the other cells of the body came.

3. The above is a simple statement of a very complicated process of cell growth. There are said to be some thirty millions of cells in the human body, combined into tissues of immense complexity. By their union and coöperation, under variation and natural selection, they have reacted and form a differentiating organism, in which all of the differentiations are also integrated by being beneficial to the welfare of the whole. But all of the varying growths and functions of cells are *determined* by the cells immediately begetting them *plus* the organic effect of the tissues in which both are, and the reacting effects of the other parts of the body, which of course is very great in determining the functions, and division of labor of the tissues. The next important factor after the cells in all these changes is

of course the blood, (which is their food), and its circulation :

“*Blut ist ein ganz besonderer Saft,*”
Blood is a juice of rarest quality.—

we read in Faust, and rightly,—for it is the substance out of which the organism is built, and *into which* the materials of every part of the organism *also fall* in the process of removal *and* renewal. Here we have what there is of truth in Darwins *Pangeneses*; for the *gemmules* or materials of every tissue and part of the body are given back to the blood. They are then added to by foods, are purified in the lungs, and then sent over the system to be re-assimilated. The embryo is fed by this composite blood in forming its cells, and thus becomes, by *the same order* of its cell growth, the repetition conjointly of the two bodies whose original cells started its new life-processes. The blood is the body in solution; it is the circulating living protoplasm, *plus* the salts, lime, iron, and the other *extra* materials, used to sustain the body.

4. The point not to be overlooked is the inevitable *order* of the growth in which this nutrition and cell-genesis from the blood occurs. All of this wondrous organising by integrative differentiation arises from the increasing capacity of the cells and of the tissues formed by them, to take up only *their* kind of nourishment from the blood or sap, and to assimilate it as the growing organism needs it to form its new tissues and organs. This line of variant and increasing cell-nutrition is determined at the start by the nutrition—capacity of the fertilised germ.

The tune is set in the act of fusion or fertilisation, and in that germ's first nourishment. All of the subsequent processes and stages are but the union of those two lines of nutrition and growth which were combined in the germ by the two cells which made it fertile. Those stages evolve, therefore, ever after in the same order of growth of the parent organisms from which the two cells came, whose union made the fertilised germ of the new individual. This is so because the preceding growth always determines the cell-nutrition that is next to be taken from the blood in order to form each of the subsequent successive growths. Thus the growth of the embryo repeats both parents, and all their organs and bodies *jointly*, in exactly the same order in which *they* originally grew; which is, of course, also the order in which they were acquired by the Family or species to which they belong. Thus, to repeat Haeckel, Ontogeny is the epitome of Phylogeny: The embryo-individual incorporates his race in his growth in the order in which it evolved: for he does it out of the cells which that evolution deposited in his parents, and with the blood which, by order of increasing and accumulative cell-nutrition, his cells must assimilate in the mode, and in the order in which his newly form-

ing organs need it in order to grow,—and just as his parents formed theirs.

Upon these facts heredity and all of its facts and laws are a matter of course. For, *with* the same materials, *by* the same capacities of nutrition, through the same processes, *from* the dual germ, each individual combines and repeats through the same or similar stages the *bodies*, and, therefore, also, the *forms*, dispositions, instincts, minds, capacities, peculiarities, habits, diseases etc., of *both* of its two ancestors. Thus the plain and simple fact and law of physical cellular-genesis, is also the law of heredity, as to both body and mind. Thus our ancestors determine our “lot and fate” on earth, by the fertilised germ they give us, having the capacity to repeat and grow and nourish itself out of the blood in the way and order of the parents own growth, and *in no other way!* This combination of two parents in one cell, prevents the repetition of *one*, only, and secures the mixture and variations upon which natural selection has worked out the races, *and* our race, the culmination of all—ending the life-drama.

From this law of cellular-genesis, and its consequent heredity, there is, of course, no escape, but it may be applied for *race*-improvement by wise selection in breeding, by better foods, by more favorable environments, and by the education, conduct, and exercise of a life directed to an ever higher and more ennobling ideal. Each life is the burning point of two lines of ancestry. We are ruled from their urns, as Byron has it in Manfred, or “as certain of our own Poets” (Dr. Fred. Peterson,) “In the Shade of Igdrasil” (G. P. Putnam’s Sons, N. Y.,) sings, as with psychologic eye he follows a fair “Lady walking,” and sees:—

“Two lines of ghosts in masquerade,
That push her where they will,
As if it were the wind that swayed
A daffodil.”

But it is not so pleasant when that eye falls upon “The Idiot”:—

“The horrid vacant visage leers,
And shows its heritage of woe;
The scars—the sins of ancient years,
Could any love or hate it? No!
Pity may give her tears.”

The proofs of the law above stated can be here but partially referred to—they are the data and facts of the general Science of Biology. *Embryology* is, under it, but the summary of the stages of ever varying nutrition, and consequently of new cells and organs arising, by and in the parental order of nutrition, out of the common blood. How nutrition determines organisation, we see in the special feeding of the worker-larva of the honey-bee until it develops into a perfect queen.

We notice how the baby mammal is fed first by the male cell, then by the mother’s blood, then by her milk, then by meats, fruits, grains, etc. As it takes

higher nourishment it changes its organisation so as to capture and appropriate still more difficult pieces of food protoplasm. In hybridising of plants or animals the union of male and female cells of widely different organisms in the germ-cell gives not only a new variety representing the characteristics of both parents, but they produce germ-cells not easily fertilised, i. e. often infertile. Hence hybrids are generally sterile.

In the re-growing of mutilated parts of some animals; in the extravasation of blood, and the grafting of animal tissues we have familiar examples of cells determining and directing the line of future growth out of a common blood. The grafting and budding of plants and trees are still more common examples: The cells always by repeating themselves by aliment out of the blood or food only *then* suited to them, thus determine the line and order of the growth—thus *starting* the alimentary, muscular, nervous, osseous, etc., systems, and all of their tissues and organs, in the old parental order.

Of course the mutilations of the higher animals which have already attained their growth cannot be repeated or represented in their offspring. The tail of the embryo mouse is not determined by the tails of its parents, but by the line of cell growth preceding and compelling the formation of the cells which form the tail, and of which those tail-cells are the inevitable continuation by the inevitable law of cellular genesis out of the common blood which contains the materials for them to grow. Weismann may therefore spare the tails of the rest of his mice. For cut them as he will, their offspring will have tails, until, as above intimated, variations by breeding, food, new life and environment, under natural selection, gives us a new mouse—which it may do. Otherwise he is expecting “eels to get used” to their skinning; and that the locking of the stable-door will bring back the horse.

But there is a sense in which the parent-cells which fertilise the germ of the new individual specially represent their parents:—they do so in their special, parent-derived, *form*-power of assimilation and growth. By that, the form and life-tune of the individual is set—whether it be tree or man. How can breeding organisms give and fuse together the best and healthiest cells for that purpose—is the main question of every race; and it will take all there is of life, science and civilisation to answer it. Neither the man nor the tree is *in* the germ, as was once thought, nor does it contain “elements,” as was afterwards thought, but only the power and *form*-capacity to commence a new line of organic growth, by repetitions or division of itself, sustained by nourishment taken as the growing organism needs it from the blood. The male cell may be said to be the first mouthful that the female germ takes to start the process of growth by nutrition—thus beginning the

life-drama of race, and of the individual, which we may see unrolled in "Haeckel's Evolution of Man."*

This law is also the basis of all human confidence. We thus have the permanent in change ("*Dauer im Wechsel*."*) The generations are the waves of life remaining ever true, and thus forming the species, while ever repeating the individuals with variations, which are chiefly the result of sexual genesis; for, as Weismann shows, parthenogenesis favors a uniformity fatal to all hope of progress.

It is this *general* permanency which gives the basis for natural and for *our* artificial selection. Without general permanency of species, "the variation of species" would make all certainty of useful life, impossible; and all certainty of the useful conduct and culture of life would be equally impossible without the variation of the individuals.

Nature has selected the golden mean. The stream, the *forms*, and the processes of life, remain, but never are the waters or even the waves exactly the same.

THE REDEMPTION OF THE BRAHMAN.

BY RICHARD GARBE.

[CONCLUDED.]

X. A NEW LIFE.

At the moment when Gopa, in her anger, had left Ramchandra, Krishnadas returned and greeted the young Brahman with sorrowful friendliness. "I am glad to see you once more; let us take leave forever."

"No, my fatherly friend," answered Ramchandra, cheerfully, "I know what has happened; Gopa has told me; and more than that, I see that your meal is ready. I have not eaten yet; permit me to share it with you."

"Are you out of your mind, Ramchandra?" exclaimed Krishnadas.

"No, I am more nearly in my right mind than ever before."

The merchant was greatly astonished and pleased. Still, he thought it his duty to impress thoroughly on the impetuous young man the significance of his resolve. "What a change, friend. Truly a noble step, but think: if you eat at that table yonder, will not all the Brahmans, yes, even your own father and brothers turn from you with disgust?"

*Besides Haeckel's Works, the reader is referred to Weismann's "Heredität" (English Translation), especially to page 168: "Haeckel was probably the first to describe reproduction as 'an overgrowth of the individual,' and to attempt to explain heredity as a simple continuity of growth." See also pp. 112, 104, 176, 412, 432, etc.—Also see his Essays on Heredity and Amphimixis, pp. 158, 162, 199, 209, etc.—The method and spirit of all modern Biology should be reviewed in Goethe's poems;—such as "*Dauer im Wechsel*," "Metamorphosis" of Plants, and of Animals, "The Orphic words," "Gott und Welt," etc., "Natur," "The Dornberg Letter," and especially the lines on himself at the end of the *Yenien*, so often partly but never fully quoted; and in which he finds that he, the most creative and original of poets, is little more than a "tradition"—

"Wenn Kindesblick begierig schaut,
Er findet des Vaters Haus gebaut," etc., etc.

For a moment it seemed as if Ramchandra, in view of the recollections awakened by Krishnadas, might weaken in his decision. With a groan he cried out: "My poor old father! My dear mother! Shall I never hear your voices nor my brothers' again in this life?" Then he quickly recovered himself, and with the words, "In spite of all, I see my way," he stepped to the table. Still he hesitated a moment; for this act signified a separation from all his former associations and all his former aims in life. Then he ate a few bites while Krishnadas looked silently on with earnest eyes. "So now it is done," said he, "the chains of superstition have fallen from me, and I am free!"

Krishnadas stepped to his side, laid a hand upon his shoulder, and said with deep feeling: "May you never regret it, my brave Ramchandra; but if you do, you may be sure that no one will ever hear from my lips what I have seen."

"I shall not regret it," replied Ramchandra, "but the surprise expressed in your face will become still greater, when you hear what I ask of you. Fate seems to decree that I shall be indebted to you for all the best gifts of my life."

"Speak, friend, what do you wish? I do not understand you."

"In these days," continued Ramchandra, "it has filled my whole being with more than human strength, since I have understood in my heart the voice of nature,—that voice which people in our land do not hear, because it is deadened by the laws of Brahmanism— Krishnadas, I ask of you your daughter Gopa as my wife."

"Ramchandra, what do I hear?" answered the merchant in painful perplexity. "What am I to understand? How can you think of that? Gopa is a widow!"

Ramchandra made a gesture of remonstrance. "No, she is not, even if every one of our people declares that she is. Gopa is a young woman according to divine and human right. And besides, if she were a widow she might become the wife of another man."

"Ramchandra, your affection leads you astray. It cannot be. No priest in our land would unite you; and besides, Gopa would not wish it; she is pious and regards the law."

Then cried Ramchandra with brightening eyes: "If she does not wish it, I shall go on my knees before her, and beseech her until the fiery flame of my love shall touch her heart also. I will not leave her, though I must contend with the whole world. But I hope she will wish it, she must wish it. True, we shall not be able to find a priest of our people who will marry an outcast Brahman, and a widow, the daughter of an outcast merchant. But the Sahib,—the Judge,—he will do it, and the marriage which he performs is valid,

if not to our former friends,—what are they to us now, or we to them?—at least it is valid to us, just as good as any marriage ceremony performed in our land.”

Shaking his head, Krishnadas went to the door to speak to his daughter. “I cannot believe it,” he murmured. “Gopa, are you there?”

The maiden appeared at once, still pale with excitement. She cast a wrathful glance at Ramchandra who she supposed had left the house, and pointing to him with outstretched arm, said to her father: “Protect yourself from that man, from the Brahman who dares to attack the honor of this house.”

Ramchandra wished to speak, but restrained himself and was silent. Krishnadas, however, was shocked at his daughter, and feared that her burden of sorrow had broken down her mind. He gazed with astonishment now at her and now at Ramchandra, and then suddenly he turned to the maiden: “Come, Gopa, listen to me! He whom you call a Brahman, is no longer a Brahman; a few moments ago he ate at that table.”

Gopa stepped back. “Did you do that, you Ramchandra?”

“I tried to prevent it,” said Krishnadas, “but he would not heed me. He has given up his caste, his parents, his brothers and sisters, in order to be our friend in this adversity.”

Gopa’s lips quivered. She would speak, but restrained herself.

“Another thing I have to tell you, Gopa. But prepare yourself to hear the most wonderful thing you ever heard in your life. Ramchandra asks for your hand,—he desires you to become his wife.”

Gopa’s glance sank to the floor, a tremor passed over her whole frame. Then Ramchandra slowly approached her and said in a gentle voice: “I always loved you, Gopa, but I knew it only a few days ago.”

The maiden lifted her happy eyes, leaned upon his shoulder and whispered: “I always loved you, and always knew it.”

As Krishnadas saw the two standing in silent embrace, he lifted his hands in thanksgiving: “O ye heavenly beings, receive my thanks that after such sorrow you permit me to see this happy hour. If the will of the gods has ever been done upon earth, it is done now.” Suddenly he listened. “I hear footsteps, stand apart, my children.”

Ramchandra and Gopa had barely time to step away from each other when the door opened. The next moment Krishnadas and Gopa exclaimed as with one voice, “The Purohit!”

Ramchandra stood firm. He knew that a severe contest was before him, but he felt himself prepared. The Purohit had entered without the usual blessing, and now addressed himself only to Ramchandra.

“Is it known to you, Ramchandra, that the house in which you tarry is unclean?”

“I know,” replied the latter calmly, “that it has been visited by misfortune. But it is not unclean.”

“I tell you it is unclean, because that woman yonder . . .”

Ramchandra interrupted the malicious words of the Purohit: “No word about her! I think you have to do only with me, not with my friends.”

“Admirable friends! Next I suppose we may look for you in the huts of the Pariahs. But I tell you, if you ever cross this threshold again you must do penance for it more severely than you think. Now leave this place at once.”

“No!”

“What? You dare to defy me? Once more I command you to leave this house!”

With a calmness quite unexpected to Krishnadas and the daughter anxiously clinging to her father, Ramchandra answered: “Only those should give commands who have power to compel their execution. You weaklings have allowed this power to be taken from your hands; the Sahibs rule this land.”

“Aha! that is it!” remarked the Purohit with bitter sarcasm, “you have become a flatterer of the Sahibs. Next we shall hear that Ramchandra, the learned Brahman, has accepted the Christian faith.”

“Oh no,” said Ramchandra, “rest assured I shall not become a Christian. But one thing I see, that the Sahibs rule our land wisely and justly.”

“And mildly,” added the Purohit disdainfully. “Mildly at least they deal with you, Ramchandra, their spy.”

This was too much for Ramchandra. His well-restrained indignation now broke forth in full strength. “Silence! if your slanderous tongue utters another such word, you shall feel my hand in your face!”

With uplifted right hand he started upon the Purohit, but Krishnadas seized his arm, held him back, and begged him to control himself. The Purohit spoke in scornful tones: “You cannot offend me, raging boy. Await your punishment!” And with that he turned to go.

“Wait,” said Ramchandra, “listen to another thing which you must consider in the assembly of the caste called for the assignment of my punishment, I ate to-day at the table of my friend Krishnadas, and I shall take his daughter Gopa to be my wife.”

An expression of indescribable contempt overspread the face of the Purohit, as he heard these words. “Fie upon you!” he cried; “even to-day will the decision of the caste hang over your guilty head. No one has ever so fully deserved it as you who in criminal insolence have trodden in the dust the highest commands of the gods.”

"The gods!" repeated Ramchandra. "I do not fear them. Even the gods Brahma, Vishnu, and Siva, are not the highest in the universe, far above them stands the great One who has no equal."

The Purohit trembled with wrath. "Oh that your tongue may cleave to the roof of your mouth! How dare you excuse your sinful passion by the deepest wisdom of our people? I curse you! May all sorrows attend you through this life and a thousand others, . . . nay, may you never find redemption!"

"Redemption?" Ramchandra cried while his superior indignantly left the room, "I have found it. There is but one in India, the redemption from the fetters of your delusion, from the soul-smothering bonds of Brahmanism."

Gopa approached Ramchandra with admiring glances; she clung to him and said: "Dearest, it was fearful, but you fought like a hero, nay, like a god." And with a smile she added, "You appeared to me like a god of ancient times when I first saw you in your conflict with the Moslems."

The countenance of Krishnadas wore a sorrowful expression. "Children," said he earnestly, "your whole life will be a conflict, and a hard one, I fear. May your strength never fail. I see with sorrow that I cannot help you much in your tribulations."

"Oh, father," said Gopa tenderly, "do not let it trouble you; we shall be a support to you as far as we are able, for you have been the founder of all our happiness." And Ramchandra added, "We shall never forget it. Trust my strength and look into the dark future with hopeful courage, as we do."

"You are young," answered Krishnadas, "and may live to see things change in our land. I shall not; and it is not necessary. Having once partaken of such happiness as has been mine to-day, I have not lived in vain. Come, children, we must calmly consider what is to be done."

No sooner had the three seated themselves for a consultation, than an unexpected visitor caused them to rise again with an expression of astonishment, for the man who was entering with every indication of anxiety was no other than Mr. White. But the next moment the face of the visitor brightened, though he seemed no less surprised than they. "So you are here, Ramchandra, alive and well, God be praised," said he; and, turning to Krishnadas, he added: "and, pardon me, sir, for entering your house; it was on account of my anxiety for Ramchandra."

Krishnadas bowed low. "Your entrance into this house, Sahib, is an honor to us. You are highly welcome."

"I thank you, Krishnadas," replied the Englishman. "This is Gopa, is it not?"

"That is my name, Sahib; how do you know me?" asked the maiden, with a smile.

"As if a friend of Ramchandra would not know you!" said he, and, not noticing Gopa's blushes, he turned to Ramchandra: "I have grown anxious about you lately, because of your not coming to me as usual at the appointed hours. The last time you were at my house, I thought you were ill. So I went to-day to your home and found it empty. The people directed me here to the house of Krishnadas; at the entrance I found the people in a state of peculiar excitement, and received evasive answers to my questions. Fearing some misfortune, I entered and see with joy that I am mistaken."

"Ah, Sahib," apologised Ramchandra, "I should have sent you a message that I could not come. Pardon my neglect. So much has happened that absorbed my entire attention. This day is the most momentous of my life."

"You will tell the Sahib all?" said Gopa to her lover, in embarrassment. "Please, do not."

"Let me, Gopa; he will understand us," said Ramchandra. "Look, Sahib, the Brahman cord still hangs about my neck." He threw back his outer garment, took off the single white woolen cord, which is the sacred emblem of Brahmanism, broke it, and threw it from him. "There it lies in shreds, the last outward sign which binds me to my caste. My Brahmanhood is gone."

"Ramchandra, explain to me," asked the Englishman, who had listened to him with amazement.

"It is told in a few words," answered Ramchandra. "Krishnadas, the best and noblest man who was ever born in our land, is to-day thrust out of his caste because he followed the inclinations of his heart and spared his daughter the undeserved pain, the endless misery of an imaginary widowhood. I bless him for it."

"Ah, I begin to understand," exclaimed the Judge, and as Ramchandra continued, drawing the embarrassed Gopa to his side, "so have I also this day broken the fetters of my caste; Gopa is to be my wife," his face lighted with inner satisfaction.

"Heaven be praised! the first trait of true humanity in Benares," he whispered, filled with that happiness which is found only in unselfish interest.

Ramchandra continued: "And now I am determined to brave whatever may come. We are poor, but I feel within me the strength for hard work. If it be necessary, I shall labor in the fields as a coolie."

"An honorable decision, Ramchandra; I admire you," said the Englishman. "But you need not be anxious about your means of support; there are always Europeans here who wish to be instructed in the wisdom of your ancestors."

Gopa threw herself at the feet of the Judge : "Oh, Sahib; oh, protector of the poor, you are great and good!"

The Englishman lifted her up with the gentle reproach : "Gopa, rise; one must not kneel before man." And, turning to Ramchandra, he said : "You do not know yet what I owe you. You have restored in me the belief in your people, which I had lost. In you I see the future of this country."

THE END.

CURRENT TOPICS.

As I am not in good standing with the Republican party, and as the Democratic party is not in good standing with me, I can sit on the fence and listen with luxurious indifference to the pleadings of both sides, and I can laugh with non-partisan impartiality at the calamities of either. The Democratic party having been run through the thrashing-machine offers me a great many excuses and apologies this morning for its bruised and ragged appearance. The Democratic "organ" for which I subscribe assures me that the "landslide" was not caused by the heavy rain of Republican ballots, but was due to the natural thawing out of the ground which always happens in the "off year." Repairs will be immediately begun and the line put in running order for 1896 or 1900 or 1904. I accept all the excuses and apologies because they all appear to be good; "hard times," for instance; "factions in the party"; "the stay-at-home vote"; "over-confidence"; and "want of confidence." One candidate was defeated because "he has worn a Prince Albert coat and a silk hat ever since the year 1880." It seems a little paradoxical that the defeat in Massachusetts was caused by putting up a new candidate for governor instead of the old one, and in Iowa by putting up the old candidate instead of a new one, but this apparent contradiction is reconciled by the profound theory that "the reasons for defeat are of course different in different parts of the country." The most satisfactory excuse offered up to date is "the light vote cast by the democrats and the heavy vote cast by the Republicans." All the other excuses may be condensed into that. They may all be concentrated into the apology offered by the little girl for the non-attendance of her brother at school, "Teacher, mother says please excuse Patsy for absence; he is dead."

* * *

Not knowing what might happen, and perhaps a little suspicious of what really did happen, Mr. Cleveland issued his thanksgiving proclamation a few days before the election. Had he waited another week he would have had nothing to be thankful for, and in that case he might have withheld his proclamation and left the country in a state of religious destitution. We are the wisest, freest, and greatest people on the face of the earth; we acknowledge that ourselves, and yet we do not know how or when to worship until we are instructed by our sovereign pontiff the President of the United States. Thanksgiving day was honored by the Romans as a festival to Ceres, the goddess of corn, and they established it in Britain where it is preserved unto this day as the feast of Harvest Home. The English brought it over to America and naturalised it here as the feast of Thanksgiving. It is a kindly, cheerful, and beautiful celebration when it is not used by "chief executives" as religious or political capital, but when they improve the occasion to do a little exhorting, they advertise us all as a sect of the Pharisees. They know that only a very small fraction of the American people give anything but contemptuous notice to a presidential exhortation which advises them to "assemble in our usual places of worship where we may recall all that God has done for us, and

where from grateful hearts our united tribute of praise and song may reach the throne of grace." Thanksgiving proclamations appear to be very harmless because they are very dull, but whether intentionally so or not, those presidential calls to prayer are ecclesiastical encroachments on religious freedom. They are furtive attempts to make the head of the state the head of the church as it is in England. They are arguments for Sabbath-laws and many other vexatious restraints upon the citizens; and in the Parliament of Religions they were continually brought forward as proofs that Christianity is the law of the land.

* * *

When the "Chief Executives" of the country set the people to praying against one another, presidential and gubernatorial calls to prayer will probably cease. Mr. Cleveland little thought when he issued his Thanksgiving proclamation that it would be suddenly reduced to an absurdity by the "Chief Executive" of Oregon, or that the Governor of that province in his proclamation would call upon the people of Oregon to pray against the President and his financial policy. National prayer was caricatured into a roaring comedy when Governor Pennoyer in his Thanksgiving proclamation said: "While, therefore, the people of Oregon return thanks to God for his goodness, I most earnestly recommend that they devoutly implore him to dispose the President and Congress of the United States to secure the restoration of silver as full legal tender money." I think that Governor Pennoyer's proclamation is more practical and business-like than that of the President, because if men will pray for favors, they may as well pray for something tangible and specific while they are about it. Governor Pennoyer is, no doubt, thankful for the mines of silver in the western mountains, but he thinks that Providence ought not only to have created the silver and put it there, but also that he ought to have made it a "full legal tender," and so he sensibly prays for that. Now, if the Governor of Illinois will call upon his people to return thanks in "praise and song" for the repeal of the Sherman law; and if the other Governors will all take sides according to their politics we may have another interesting discussion of the Silver Question in the form of prayers upon Thanksgiving day. [P. S.—Friday, November 10, Governor Altgeld's proclamation has appeared. There is no politics in it, and very little religion. The worship recommended is chiefly limited to praise and thanks for the World's Fair.]

* * *

Last week I spoke about the multitude of cranks who were so excited by the assassination of Mayor Harrison that they filled the newspapers with crazy theories about cranks and how to exterminate them in the quickest possible way. I referred also to the sulphurous delirium of certain pulpit-cranks, who wanted to ride over sense and law in their eagerness for vengeance. They acted like angry children beating dolls, and they prescribed straight-jackets and imprisonment for all the cranks in the world except themselves. These "eye for an eye and tooth for a tooth" divines had for their eccentricities the excuse of sudden passion. The Mayor had been assassinated on Saturday evening, and they spoke on Sunday morning. Their emotions were stimulated by the magnetism of music, prayer, and the hypnotic influence of congregations full of wrath. Theirs was only a temporary aberration; but what shall be said of a minister of the merciful gospel who takes a week in the quietude of his study to prepare a sermon and then preaches like this: "That man Prendergast should have been thrown out of this planet before his victim was placed under ground. Let there be no lynching, but a quickening of all the machinery of government." These were the sentiments of the Rev. Mr. Talmadge, and I would like to ask him how Prendergast could have been "thrown out of this planet" in the time specified without lynching him. It is almost impossible to quicken the machinery of government so as to legally throw any man out of

this planet in three days. Is it not a stretch of charity to call Mr. Talmadge merely a harmless crank?

* * *

The Sunset Club had a dinner and debate last night, November 9, at the Grand Pacific Hotel. With innocent irony they discussed the "crank" question, totally oblivious of the fact that many persons in Chicago think that among the "crank" societies "that need looking after," is that curious mixture of heterogeneous individualities that goes by the name of the Sunset Club. Among my intimate friends is a gentleman who has attained great eminence in his profession as a surgeon and physician. He has written many books of authority on the subject of insanity and the diseases of the brain. Owing to his peculiar fitness he was appointed superintendent of the lunatic asylum, but having had a great deal of trouble in explaining to the inmates that they were patients of the institution, and that he himself was not a patient, but the superintendent, and finding that they would not believe him, he resigned. So it is with many members of the Sunset Club; they cannot understand that they themselves are patients in the great asylum. It was a physiological curiosity that the "crank" theme, acting like a magnet, drew into the debate a large number of incurables. One patient said that "if a crime has been committed, the penalty must follow, whether the perpetrator be sane or insane; and that the time has come for civilisation to assert the principle that it cannot take into account motives, but must judge by facts." This reformer had "forgotten out of his mind," as Uncle Remus expresses it, that his "principle" actually did prevail in the dark ages when they punished a wagon for hurting a man; but when civilisation came that principle disappeared.

* * *

The sentiment quoted in the last paragraph gives warrant for the opinion that the Sunset Club "ought to be looked after." I will quote a few other examples as warnings to the authorities of what is going on. One incurable at the Grand Pacific asylum said of the homicidal cranks, that rather than turn them loose upon society he would "tear them limb from limb, as they did the maniac who attacked Henry the Fourth of France." Several patients thought that all cranks ought to be locked up; and one who was very far gone said that a better plan would be to lock up our public men so that the cranks could not get at them. "I would go so far," he said, "as to recommend that our chief public men be provided with official residences, prepared especially for the reception of the public, and so arranged that they need not be run in upon by the first person who rings the bell." Some of the speakers thought that cranks were the product of the "spoils system"; others believed they were created by the "pardoning power"; a few thought that the "non-enforcement of the laws" was responsible for the evolution of the crank, while one of the inmates thought that the "carrying of concealed weapons" ought to be prevented, but by what psychological power concealed weapons were to be discovered he did not say. He was about as logical as the Irish policeman who declared that he would run in any man that he found carrying a concealed weapon in his fist. There was a convalescent present who declared that newspaper slander of candidates made a great many homicidal cranks, but this was denied by a newspaper-man, who thought that the opinion was altogether unsonnd. Strangely enough, not one patient in the asylum thought that cranks were ever produced by the debates of the Sunset Club. M. M. TRUMBULL.

NOTES.

Goethe's poem alluded to by Mr. Wakeman in a footnote to his article, on page 3874 of this number, is remarkable in many respects. The poet-philosopher explains that all the parts of which our self consists have existed long before our birth, the material conditions of life, language, ideas, and aspirations. The poem is

little known and still less quoted, and as we know of no translation, we have tried to reproduce the poem in the following English lines, which are as simple in form and of the same metre as the original:

"When eagerly a child looks round,
In his father's house his shelter is found,
His ear, beginning to understand,
Imbibes the speech of his native land.
Whatever his own experiences are,
He hears of other things afar.
Example affects him; he grows strong and steady,
Yet finds the world complete and ready.
This is prized, and that praised with much ado;
He wishes to be somebody, too.
How can he work, and woo, how fight and frown?
For everything has been written down;
Nay, worse, it has appeared in print.
The youth is baffled but takes the hint:
It dawns on him, now, more and more,
He is what others have been before."

[Wenn Kindesblick begierig schaut,
Er findet des Vaters Haus gebaut;
Und wenn das Ohr sich erst vertraut,
Ihm tönt der Muttersprache Laut;
Gewahrt er dies und jenes nah,
Man fabelt ihm, was fern geschah,
Unsitteigt ihn, wächst er heran:
Er findet eben alles gethan;
Man rühmt ihm dies, man preist ihm das:
Er wäre gar gern auch etwas.
Wie er soll wirken, schaffen, lieben,
Das steht ja alles schon geschrieben
Und, was noch schlimmer ist, gedruckt,
Da steht der junge Mensch verduckt
Und endlich wird ihm offenbar:
Er sei nur was ein andrer war.]

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