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FORMS AND ORIGIN
OF
LIFE, SPECIES AND
NEOPLASMS

BY
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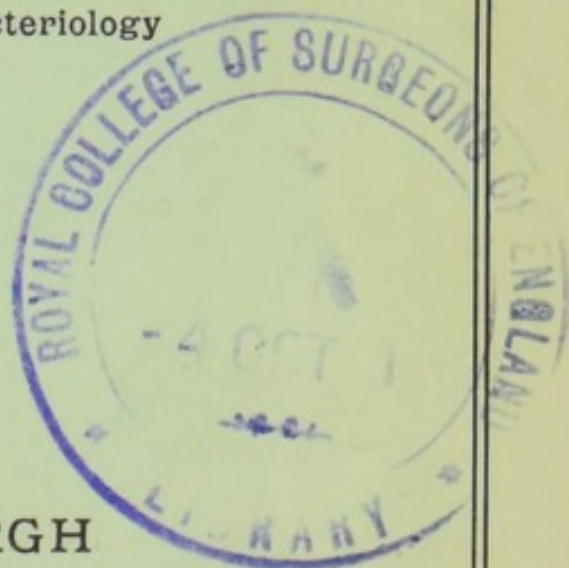
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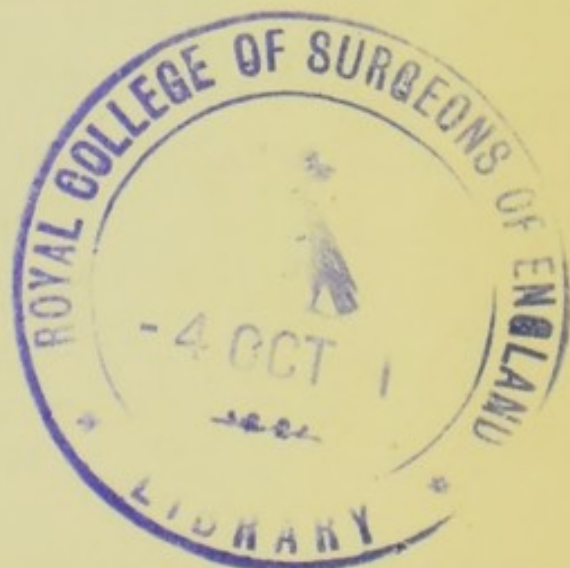
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A STUDY AND RESEARCH
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FORMS AND ORIGIN OF LIFE,
SPECIES AND NEOPLASMS

BY

CHARLES FREDERICK KNIGHT, M.D.

FORMERLY LECTURER ON SYSTEMATIC AND PRACTICAL
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A STUDY AND RESEARCH ON THE FORMS AND ORIGIN OF LIFE, SPECIES AND NEOPLASMS.

Origin of Life and Species.

THE fertilising agents in animals are called spermatozoa and the fluid in which they exist the seminal fluid. These agents have the power of giving the new animal resemblances and peculiarities which may be perpetuated through generations; the corresponding fluid in plants is called fovilla or pollina. What is the actual fertilizing agent in this fluid? are there analagous bodies in it to spermatozoa?

Spermine, which is now produced in the laboratory under various names, stimulates the physiological activity of organs and tissues, and has a rejuvenating

effect ; injected into a young tree in spring, growth becomes more vigorous.

Does "fovilla," which is consumed in large quantities by herbivora, stimulate their organs and improve nutrition ? and does this account for their great muscular strength ?

What becomes of the myriads of ova daily escaping unfertilised into marine plasma (sea-water) ? Doubtless the majority perish, but some may be fertilised by the spermatozoa of other animals and new forms of life may then be developed ; we know that one animal's spermatozoa can fertilise the ova of other animals and give rise to forms of life different to the original two forms from which they sprang.

What is true in the animal kingdom is equally true in the vegetable kingdom ; and one can prove that the pollina of one form of plant life can fertilise a different form and thus produce a new species—in some cases capable of reproducing itself,

in others not. Now comes the fascinating problem: Can an animal fertilizing fluid, fertilize a vegetable form? and is the converse also true?

From experiments carried out by the writer, the answer must be in the positive.

Opportunities for further research do not at present offer themselves to the author of this article, but some "problems of life" and "lines of thought" are suggested by him for the "Beit" fellows and others engaged in "research" work:—

1. What is the ultimate fate of the ova which are liberated from animals and plants?
2. By interchange they produce other species; but what are the exact conditions which govern these changes?
3. Why does sex depend on the amount of food supplied to the embryo?
A queen bee may be produced artificially by cutting away the

adjacent cells at the side of a honey comb. The workers or barren (?) females, at once enlarge the cells and supply more food ; if the embryo is not more than three days old, a young queen is the result ; if the same experiment is performed in the centre of the comb, the cells are enlarged to some extent, and the embryo develops into a drone or male bee, but if the cell be left alone a " worker " bee is developed.

Again, an unfertilised (?) worker, in the absence of a queen, sometimes lays eggs, which, however, only produce drones, and cannot, at anyrate with our present knowledge, be converted into queens. This raises the question : Can a condition of fertilisation be handed down from one animal to another, *i.e.*, can an animal with

fertilised ova give origin to another animal possessed of ova which are fertilised at birth? As in this case the barren bee produces fertilised eggs without copula; but an experiment might be made by feeding bees without a queen, with candy or syrup containing some form of spermine.

4. Why is one fertilisation in the cases of a queen bee sufficient for life?
5. Is conception possible without copula?
6. Can a blood-borne body, as spermine or other fertilising agent, fertilise an ovum in its follicle? or, can an ovum be fertilised by injection of a fertilising agent into an ovary?
7. Why is the act of copula long in flies, dogs, etc., and short in mammalia, bees, etc.
8. What are the curious "ant-like" bodies developed when human

sperms are placed on a warm slide under a microscope in a medium of soap suds?

9. What is the source of bacteria?
10. Has the rod shape of the nucleus and its staining properties any relation to bacilli? *i.e.*, are bacilli the escaped nuclei of cells?
11. What is the fate of the nuclei of plant cells contained in the cells of leaves which have fallen & decomposed in the ground? How do plants grow from leaves which lie on the ground (begonias)?
12. Can these plant nuclei fertilise animal ova, or can an animal sperm fertilise a plant?

Bacteria, flies, aphids, and other forms of life may be destroyed by "quassine."

If the environment of bacteria be changed, the form and reactions of bacteria also change.

A neoplasm is the development of a

“resten,” or in the case of carcinoma and sarcoma, an example of “cell perversion,” *i.e.*, the cells have “run riot, in manifestations of their malignity.”

The activity of cells depends on the tissue in which they are placed ; cartilage cells are grouped and held captive by a matrix in which they are encapsuled, but if they escape, as in cases of arthritis deformans, they become “demons of destruction,” and their phagocytic and osteoclastic character at once becomes evident.

Carcinoma can be produced at will by X-rays, and tumours may be digested by the enzymes found in the alimentary canal ; formerly pepsine was used to digest tumours, and more recently, on Beard’s suggestion, trypsin has been used as a “resolvent” agent in cases of carcinoma ; in mice it seems to digest carcinomata.

The Soul and Human Aura.

It has recently been stated that an aura leaves the body when death takes place, but an aura is common to all forms of life, and by its existence animals recognise other animals; this is the key to the so-called instinct of blood-hounds.

This aura is certainly not the soul.

Instinct, Mind and Soul.

Instinct is defined as the guidance of an animal, independently of reason; animals who possess a mind, act chiefly by a process of reasoning, but no man can define the soul.

What is the "language of eyes"?

How does one person know instinctively what another desires?

Can there be one mind and two bodies?

The soul has a voluntary power for good or evil, and has charge of a machine of which it can make good or bad use, but

the machine may break down early (early death).

The "black" angels may be those who have done their duty to the body badly, and their residence may be called "Hell"; they may be liberated, and influence other angels for good or evil. The "white" angels are those who have performed their duties to the body well.

Many people believe that the soul may pass into other forms of life, and is therefore in existence in other animals besides man; this is one of the great attractions of Buddhism.

