

sounds which have hitherto been inaudible by the mere operation of sonorous vibrations upon the conducting power of matter.

My warmest thanks are due to Mr. W. H. Preece, electrician to the Post Office, for his appreciation of the importance of the facts I have stated, and for his kind counsel and aid in the preparation of this paper.

I do not intend to take out a patent, as the facts I have mentioned belong more to the domain of discovery than invention. No doubt inventors will ere long improve on the form and materials employed. I have already my reward in being allowed to submit my researches to the Royal Society.

II. "Note on the Minute Anatomy of the Thymus." By HERBERT WATNEY, M.A., M.D. Cantab. Communicated by Dr. KLEIN, F.R.S. Received April 8, 1878.

The thymus is composed of lobes, lobules, and follicles.

Each follicle consists of a cortical and a medullary portion; the medullary parts of two neighbouring follicles are often united; and at one point, therefore, the medullary portion may extend through the cortex of the follicle; in some follicles the medullary portion may be found in the form of two or more islands situated in the interior of the follicle.

The follicle is composed (*a*) of a reticulum of nucleated cells, and (*b*) of cells; the reticulum forms an adventitia to the blood-vessels.

The cells forming the reticulum in the cortical part of the follicle consist of a disk-shaped nucleus, a cell body very little larger than the nucleus, and of very long, fine, branching processes.

The reticulum of the medullary portion is composed of cells with coarse, short processes; the body of the cell is more than twice, or even three times, as large as the nucleus, and contains one, or at times, two nuclei; in places, large protoplasmic masses are met with, forming part of the reticulum composed of two or three cells united together. There are also found in the medullary portions, in certain states of the thymus, connective tissue trabeculæ.

The cells are of four kinds:—

(1.) Small cells, resembling the lymph cells of a follicle of a lymphatic gland. Staining fluids act differently on these cells in the cortical and in the medullary parts of the follicle.

(2.) Large granular cells of various sizes; many of them have long processes by which, in some cases, they are attached to the trabeculæ and to the blood-vessels: these cells contain one or two nuclei, and help to form (partly by a process of vacuolation) the concentric corpuscles of the thymus.

(3.) Giant cells. Multinuclear masses of protoplasm.

(4.) Concentric corpuscles of various sizes, sometimes attached to one another by long processes. The corpuscles are formed of two parts—a central portion, which is granular, and is acted on in a peculiar manner by staining fluids; and a peripheral portion formed of flattened epitheloid cells continuous with the reticulum. The concentric corpuscles are concerned in the formation of blood-vessels and trabeculæ.

The granular cells, giant cells, and concentric corpuscles, are almost entirely confined to the central portions of the follicles.

In fresh preparations, colourless nucleated cells are seen, which contain granules and spherules of hæmoglobin; these cells either form parts of the concentric corpuscles, or are in close connexion with them.

The blood-vessels of the cortical portions of the follicle are of small size; they run in lines from the periphery of the follicle to the edge of the medullary portion. The medullary portion of the follicle is surrounded by a ring of blood-vessels; the vessels are larger in the medullary portion than in the cortical portion of the follicle.

III. "On the Classification of Loci." By W. K. CLIFFORD, F.R.S.,
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(Abstract.)

"A curve," is to be understood to mean a continuous one-dimensional aggregate of any sort of elements, and therefore not merely a curve in the ordinary geometrical sense, but also a singly infinite system of curves, surfaces, complexes, &c., such that one condition is sufficient to determine a finite number of them. The elements may be regarded as determined by k co-ordinates; and if these be connected by $k-1$ equations of any order, the curve is either the aggregate of common solutions, or, when this breaks up into algebraically distinct parts, the curve is one of these parts.

In the paper, of which this is an abstract, theorems are established relating to the nature of the space in which such curves can exist, to the mode of representing them in flat space of lower dimensions, and to some of their properties. The following are the leading theorems:—

I. Every proper curve of the n th order is in a flat space of n dimensions or less.

II. A curve of order n in flat space of k dimensions (or less) may be represented, point for point, on a curve of order $n - k + 2$ in a plane.