ess and several basilar dendrites. A single axone descends into the white substance.

The layer of polymorphous cells contains also a few pyramidal cells, but a large proportion of cells in this layer

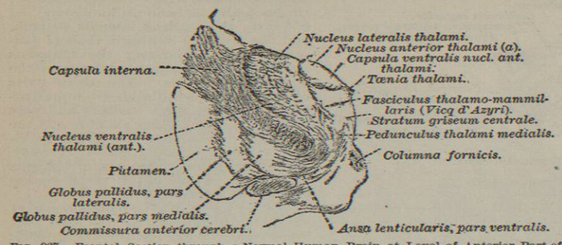

FIG. 967.—Frontal Section through a Normal Human Brain at Level of Anterior Part of Thalamus. (After C. von Monakow, *Arch. f. Psychiat.*, Berlin, Bd. xxvii., 1895, Taf. iv., Fig. 33.) (Taken from "The Nervous System and Its Constituent Neurones," New York, 1900.)

are dendraxones (Golgi cells of type II.), and the so-called Martinotti cells which have ascending axones.

The cortex in the region of the sense centres has a peculiar stamp for each particular sense centre. The structure of the occipital cortex near the calcarine fissure may be cited as an example. A section is shown in Fig. 969. The enormous complexity of the various layers is obvious.

The cortex varies much in appearance, too, in different animals, as will be seen by comparing a section through the human cortex with one from that of the dog and of the mole (*vide supra*).

A schematic section of the cerebellar cortex is shown in Fig. 970. The structures seen in ordinary hæmatoxylin and eosin preparations are illustrated in Fig. 971.

Résumé of Conduction Paths in the Brain.—The principal conduction paths in the brain are made up of several sets of superimposed neurones or neurone systems. The conduction paths may be divided into the centripetal or sensory, the centrifugal or motor, and the associative.

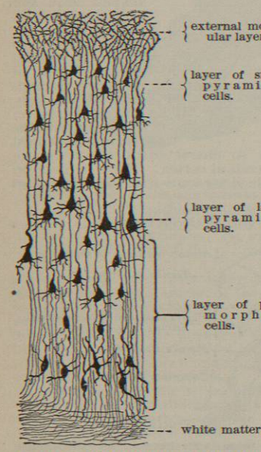

FIG. 968.—Golgi Preparation of the Cerebral Cortex. (After Böhm u. von Davidoff, "Lehrbuch der Histologie," S. 282, Fig. 201.)

The centripetal or sensory conduction paths include those (1) of bodily sensation; (2) of taste; (3) of smell; (4) of sight; (5) of hearing.

The centripetal conduction path of bodily sensation carries the impulses concerned in touch, temperature, pain, muscle sense, and visceral sensations. It consists of a direct conduction path and several roundabout conduction paths. Just which impulses are carried by these various portions of this centripetal conduction path is not known. The most direct conduction path consists in all probability of three sets of superimposed neurones or neurone systems: (1) The peripheral sensory neurones (including the ganglion cells, and their prolongations, of the ganglia on the dorsal roots of the spinal nerves, and the ganglia on the sensory cerebral nerves). (2) A set of neurones extending from the nuclei of termination of the peripheral sensory nerves to the ventro-lateral region of the thalamus (including the nuclei of Goll and Burdach in the medulla and the fibres of the medial lemniscus). (3) A set of neurones, the cell bodies of which are situated in the ventro-lateral part of the thalamus and the axones of which reach to the somæsthetic area of the cerebral cortex, that is, to the central gyri, the feet of the frontal gyri, and the gyrus fornicatus.

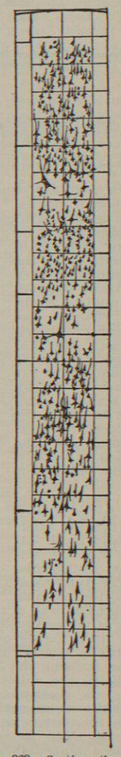

FIG. 969.—Section through the Cortex of the Gyrus Occipitalis Superior. (After C. Hammarberg, "Studior ofver Idiotiens Klinik och Patologi, etc., Upsala, 1895, Taf. II., Fig. 4.)

The less direct portions of this conduction path concern mainly the portion of the conduction path situated between the peripheral sensory neurone systems and the neurone system extending from the diencephalon to the somæsthetic area of the cortex. Roundabout routes are made through the cerebellum by way of Gowers' tract and the direct cerebellar tract to the cerebellum, and by way of the brachium conjunctivum from the cerebellum to the red nucleus. From the red nucleus a neurone system extends higher up, probably to the cortex, possibly indirectly, by way of a new neurone whose cell body is situated in the hypothalamus. The conduction path just described is diagrammatically illustrated in Fig. 972.

The peripheral sensory neurones of the path concerned in bodily sensation have their cell bodies situated in ganglia. These cell bodies give off an axis-cylinder process which bifurcates T-shaped to form two fibres. One of these fibres runs to the periphery, the other into the central nervous system. That going to the periphery is the stronger, the central fibre being of smaller calibre. The bundle of medullated central fibres from a given ganglion forms the dorsal root of one spinal nerve. The peripheral fibres are connected in their distal parts frequently with special kinds of terminal sensory apparatus; sometimes they end free in among the cells of the tissues at the periphery. The central fibres entering the spinal cord un-

dergo Y-shaped division with formation of a long ascending limb and a short descending limb. On their way they give off collaterals which run in to end in the gray substance, and the main fibres themselves ultimately

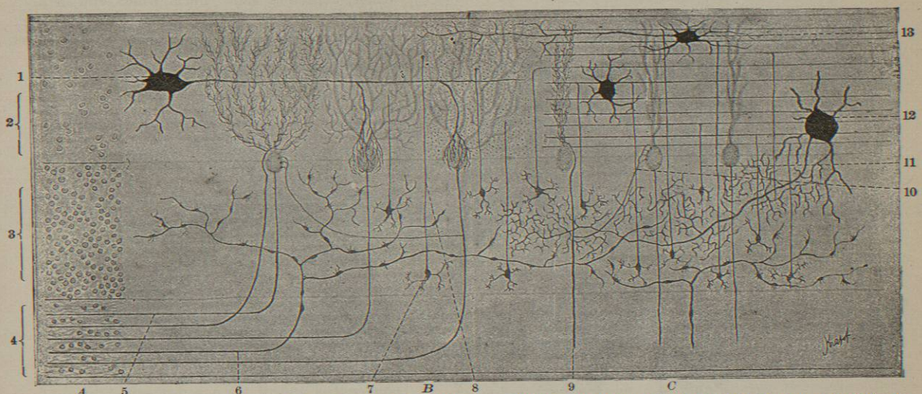

FIG. 970.—Schematic Diagram of the Cerebellar Cortex. (After Böhm u. von Davidoff, "Lehrbuch der Histologie des Menschen," S. 279.) *A*, Ordinary nuclear staining (the layer of Purkinje cells is omitted); *B*, section vertical to the surface of a convolution; *C*, longitudinal section through a convolution. *B* and *C* by the chrome-silver method. 1, Stellate cell; 2, molecular layer; 3, granular layer; 4, medullary layer; 5, axone of a Purkinje cell; 6, moss fibre; 7, cell of granular layer; 8, axone of cell of granular layer; 9, climbing fibre; 10, telodendrion of collateral of climbing fibre; 11, axone of cell of granular layer; 12, large stellate cell; 13, stellate cell.

terminate by running in to end in the gray matter of the central nervous system. The longest fibres from the dorsal roots reach the medulla oblongata and terminate in the nucleus funiculi gracilis of Goll or the nucleus funiculi cuneati of Burdach. The shorter fibres of the dorsal roots end in the gray matter of the central system near the point of entrance. The collaterals and terminals of the sensory fibres end in the spinal cord, chiefly about the cell bodies of neurones in the dorsal horns and in the middle zone of the gray matter. The axones of these cells carry impulses farther cerebralward. A certain number of collaterals, the so-called reflex collaterals, end about the cell bodies of the lower motor neurones in the ventral horns. Another group of collaterals crosses through the posterior commissure to end about the cell bodies of neurones in the gray matter of the opposite side of the cord. An important group of collaterals ends in among the cell bodies of the nucleus dorsalis (Clarke's column).

The sensory neurones of the second order of the conduction path now under discussion include the cell bodies of the nucleus funiculi gracilis and the nucleus funiculi cuneati and their axis-cylinder processes. The medullated axones from the perikaryons in these nuclei go as internal arcuate fibres to the middle line of the medulla oblongata where they cross over, decussating with similar fibres from the opposite side, to form the decussatio lemniscorum. On crossing, these medullated axones turn and run cerebralward, first in the stratum interolivare lemnisci, higher up forming the lemniscus medialis. These fibres in the lemniscus medialis are joined by medullated axones from the sensory nuclei of termination of the cerebral nerves. The fibres of the lemniscus medialis pass through the pons and enter the cerebral peduncle lying in its tegmental portion. They pass through the hypothalamus and end chiefly in the ventro-lateral region of the thalamus. Not all the fibres, however, of the lemniscus medialis reach this diencephalic termination. Many end in the pons and midbrain. From the ventro-lateral region of the thalamus, where the axones of the sensory neurones of the second order chiefly terminate, a new neurone system (sensory neurones of the third order) begins. The perikaryons of this neurone system are situated in the ventro-lateral nuclei of the thalamus. The medullated axones of these neurones pass through the internal capsule in the posterior part of its occipital subdivision and extend to the gyri of the cerebral cortex in the regions previously designated under the term somæsthetic area. According to the period of medul-

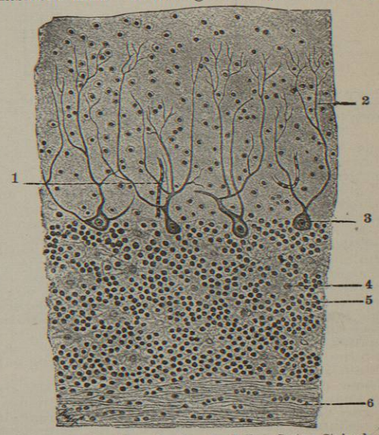

FIG. 971.—A Section through the Cerebellar Cortex Stained with Hæmatoxylin and Eosin. (After Böhm u. von Davidoff, "Lehrbuch der Histologie des Menschen," S. 278, Fig. 197.) 1, Blood-vessel; 2, dendrite; 3, Purkinje cell; 4, large stellate cell; 5, cell of granular layer; 6, layer of nerve fibres.

lation, these diencephalo-telencephalic neurones are divisible into at least three systems (Flechsig).

While the above sensory neurones of the second order account for the further conduction of sensory impulses

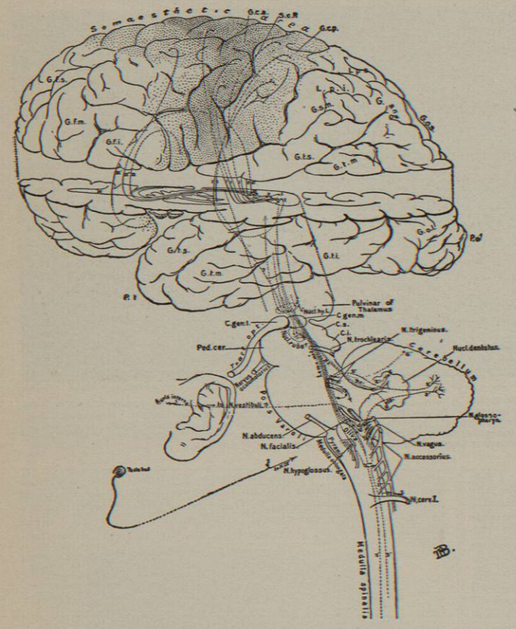

FIG. 972.—Scheme of General Somæsthetic Paths. (Taken by permission from "The Nervous System and Its Constituent Neurones," p. 744, Fig. 470, New York, D. Appleton & Co., 1900.)

which reach the nuclei of Goll and Burdach in the medulla, there are other sensory neurones of the second order which carry farther cerebralward the impulses which are brought to the spinal cord by means of the shorter fibres of the dorsal roots and the collaterals of the longer fibres which end in the gray matter of the cord. These include the neurones, the axones of which make up the direct cerebellar tract, Gowers' tract, and the ground bundles of the lateral and ventral funiculi.

Those the axones of which make up the direct cerebellar tract have their cell bodies situated in the nucleus dorsalis (Clarke's column). The tract is first well marked in the lower part of the thoracic cord. The medullated axones run cerebralward in the dorso-lateral region of the lateral funiculus of the cord, pass through the corpus restiforme, and terminate chiefly, without crossing to the opposite side, in the vermis of the cerebellum.

Those the axones of which make up Gowers' tract have their perikaryons situated chiefly in the region of the gray matter of the cord, partly of the opposite side. The medullated axones run upward in the ventro-lateral region of the cord, pass through the medulla oblongata and pons as far as the level of the root of the trigeminal nerve. The fibres hook about this and then pass backward through the velum medullare anterius to end in the cerebellum.

The neurones of the second order whose axones run in the ground bundles of the ventral and lateral funiculi chiefly represent short tracts which run in to end in the gray matter of the central system at various levels, so that the conduction path of which these neurones constitute a member is probably a multiple-membered path.

The sensory neurones of the second order whose axones end in the cerebellum transfer their impulses in all probability to neurones of a higher order, the axones of which are represented by the fibres of the brachium conjunctivum. Many of these fibres end in the red nucleus of the opposite side. Others pass by the red nucleus and end in the hypothalamus. From the red nucleus and from the hypothalamic region neurone systems carry impulses through the posterior part of the internal capsule out to the somæsthetic area of the cortex.

The centripetal conduction path of taste is not so well known as some of the other conduction paths. The peripheral sensory neurones of this path include a portion of those of the nervus glosso-pharyngeus and probably also of the nervus trigeminus and nervus intermedius. The perikaryons of these neurones are situated in the ganglia on the roots of these nerves. The peripheral fibres run out to the tongue and are there connected with the peculiar bodies known as the taste buds. The central fibres of the n. glosso-pharyngeus and of the n. intermedius run into the medulla and are situated chiefly in the tractus solitarius. The central fibres of the n. trigeminus run into the pons in the sensory root of this nerve, there bifurcate into a short ascending limb and a long descending limb, the latter running down and helping to form the so-called tractus spinalis n. trigemini. These fibres give off collaterals which, together with the ultimate terminals, end in the gray matter which represents the nucleus of termination of the sensory part of the n. trigeminus. The central neurones of this path are very incompletely understood. Those of the second order have their perikaryons situated in the nuclei of termination of the n. glosso-pharyngeus, n. intermedius, and n. trigeminus. Their axones probably run longitudinally in the formatio reticularis. But the further continuation of the conduction path, the number of neurone systems superimposed in this path, and the cortical termination of the path are not yet satisfactorily understood.

The centripetal conduction path of smell has been in part carefully worked out. The peripheral sensory neurones of this path (olfactory neurones of the first order) include peculiar bipolar cells situated in the nasal mucous membrane. The central processes are non-medullated axones which perforate the cribriform plate of the ethmoid bone and terminate by multiple ramifications in the olfactory glomeruli of the bulbus olfactorius. The olfactory neurones of the second order have peculiar perikaryons, known as the mitral cells of the olfactory bulb. The impulses are brought to the perikaryons from the olfactory glomeruli by means of the dendrites of the mitral cells. The axones of these cells run through the olfactory tract, some of them entering the gyrus olfactorius lateralis, others the gyrus olfactorius medialis. A good many of the axones end in two small gyri in the uncus of the temporal lobe (gyrus semilunaris rhinencephali and gyrus ambiens). This is the temporal olfactory centre of Flechsig. Others of the fibres end in the gyrus subcallosus and the substantia perforata anterior (frontal olfactory centre of Flechsig). Some axones pass through the anterior commissure of the brain to the olfactory region of the opposite side. The connections of the temporal and frontal olfactory centres with other

portions of the brain are very complex and special treatises must be consulted for a description of them. Some of them are shown in Fig. 973.

The centripetal conduction path concerned in carrying the visual impulses is made up as follows: The peripheral

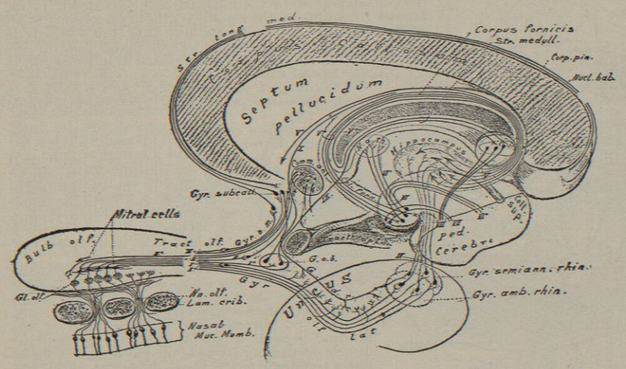

FIG. 973.—Schematic Representation of Some of the Principal Neurone Systems of the Olfactory Conduction Path. Projected into sagittal plane. *Bulb. olf.*, bulbus olfactorius; *Col. form.*, columna fornicis; *Col. sup.*, colliculus superior; *Comm. ant.*, commissura anterior cerebri; *Corp. mam.*, corpus mammillare; *Corp. pin.*, corpus pineale; *G. o. b.*, ganglion opticum basale; *Gl. olf.*, glomeruli olfactorii; *Gyr. amb. rhin.*, gyrus ambiens rhinencephali; *Gyr. olf. lat.*, gyrus olfactorius lateralis; *Gyr. o. m.*, gyrus olfactorius medialis; *Gyr. semiann. rhin.*, gyrus semilunaris rhinencephali; *Gyr. subcall.*, gyrus subcallosus; *Lam. crib.*, lamina cribrosa; *N. a. th.*, nucleus anterior thalami; *Nn. olf.*, nervi olfactorii; *Nucl. hab.*, nucleus habenulæ; *Ped. cerebri*, pedunculus cerebri; *Str. long. med.*, stria longitudinalis medialis; *Str. medull.*, stria medullaris; *Tract. olf.*, tractus olfactorius; *Tract. opt.*, tractus opticus; *I*, axones of mitral cells going to stria olfactoria lateralis; *I'*, axone of mitral cell terminating in gray matter of trigonum olfactorium; *II*, axone of mitral cell terminating in gray matter, whence axone goes to commissura anterior cerebri; *IV*, axones to anterior commissure; *II''*, centrifugal fibre terminating in bulbus olfactorius; *III*, axone of mitral cell terminating in gyrus olfactorius medialis; *IV*, axones of neurones connecting the olfactory portion of the uncus (gyrus ambiens and gyrus semilunaris) with the hippocampus (cornu ammonis); *V*, axones from hippocampus to fornix; *V'*, axone to commissura hippocampi; *V''*, axones from fornix to septum pellucidum; *V'''*, axones from fornix to corpus mammillare; *V''''*, axone from fornix to nucleus habenulæ by way of the stria medullaris; *VI*, fasciculus mammillaris princeps; *VI'*, fasciculus thalamo-mammillaris Vicq d'Azyri; *VI''*, fasciculus pedunculo-mammillaris, pars tegmentalis (*Haubenbündel* of von Gudden); *VII*, fasciculus pedunculo-mammillaris, pars basilaris (pedunculus corporis mammillaris); *VIII*, fasciculus retroflexus Meynerti extending from the nucleus habenulæ to the ganglion interpedunculare. (Taken from "The Nervous System and Its Constituent Neurones," p. 779, Fig. 501, New York, D. Appleton & Co., 1900.)

visual neurones or optic neurones of the first order are the bipolar cells of the retina. The optic neurones of the second order or central visual neurones include the cell bodies of the ganglion cell layer of the retina and their axones. The axones of these neurones run through the optic nerve to the optic chiasm, where part of them cross over, decussating with similar fibres of the opposite side. In the decussation the fibres from the lateral half of the retina run into the optic tract of the same side, while those from the medial half of each retina cross over to enter the optic tract of the opposite side. The fibres of each optic tract terminate chiefly in the lateral geniculate body, but some of the fibres terminate in the superior colliculus of the corpora quadrigemina and others in the pulvinar of the thalamus. These are the so-called primary optic centres in the brain. Extending from the primary optic centres, especially from the lateral geniculate body to the occipital cortex, is a third group of neurones (optic neurones of the third order), their cell bodies being situated in the primary optic centres and their axones running through the occipito-thalamic radiation of Gratiolet to terminate ultimately in the gray matter of the cortex of the occipital lobe, especially that about the fissura calcarina (Fig. 974).

The centripetal conduction path which carries the impulses concerned in hearing is a complex path. The peripheral auditory neurones (auditory neurones of the first order) have their cell bodies situated in the spiral ganglion of Corti. Their peripheral processes run out to end free in among the cells of the organ of Corti; their central processes run in through the cochlear nerve to terminate in the pons, chiefly in the nucleus n. cochleæ ventralis and the nucleus n. cochleæ dorsalis. In these two nuclei are situated the cell bodies of the majority of the auditory neurones of the second order. The axones from the cell bodies in the ventral cochlear nucleus go to form the main portion of the corpus trapezoideum, the fibres of the two sides decussating in the middle line. These axones terminate in part in the superior olivary complex of the opposite side, but some of them run forward in the lateral lemniscus of the opposite side. The axones from the dorsal cochlear nucleus run through the striæ medullares and plunge down to the region of the superior olivary complex of the opposite side, where some of them terminate, others entering the lateral lemniscus of that side. The lateral lemniscus receives also axones from cell bodies situated in the superior olivary complex. In the pons, then, the lateral lemniscus represents the main

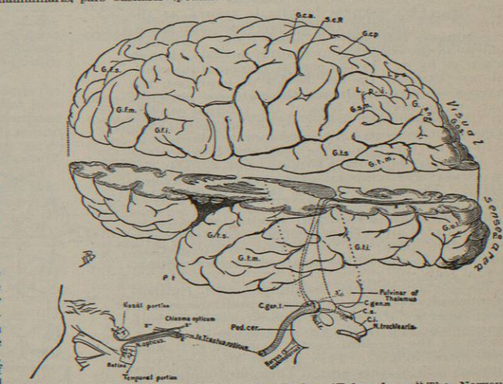

FIG. 974.—Scheme of Visual Conduction Path. (Taken from "The Nervous System and Its Constituent Neurones," New York, 1900, p. 833, Fig. 583.)

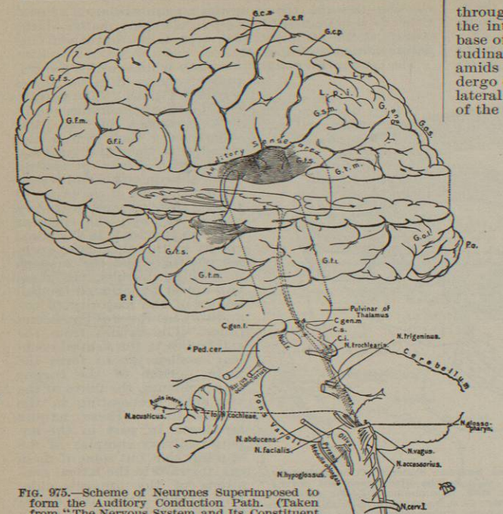

FIG. 975.—Scheme of Neurones Superimposed to form the Auditory Conduction Path. (Taken from "The Nervous System and Its Constituent Neurones," p. 880, Fig. 565, New York, 1900.)

conducting path for auditory impulses toward higher centres. A large proportion of these fibres terminate in the nucleus colliculi inferioris of the corpora quadrigemina, which therefore represents a very important way-station in the auditory conduction path. Some of the fibres of the lateral lemniscus run past the inferior colliculus and terminate first at a higher level. These fibres are joined by the axones of neurones whose cell bodies are situated in the nucleus colliculi inferioris. The conjoint bundle is known as the arm of the inferior colliculus (brachium quadrigeminum inferius). These fibres terminate chiefly in the corpus geniculatum mediale, though some go by it. In the corpus geniculatum mediale are situated the cell bodies of neurones, the axones of which run out through the posterior part of the occipital limb of the internal capsule to terminate in the cortex of the temporal lobe. This auditory centre in the temporal lobe is situated at the junction of the third and fourth fifths of the gyrus temporalis superior and includes the two transverse temporal gyri situated in the fossa Sylvii. The main features of this conduction path are illustrated in Fig. 975.

The principal centrifugal conduction paths to be considered are: (1) the general cortico-muscular conduction path; (2) the frontal cerebro-cortico-pontal path, and (3) the temporal cerebro-cortico-pontal path.

The cortico-muscular conduction path consists of at least two sets of superimposed neurones: The upper set of motor neurones consists of neurones whose cell bodies are situated in the motor region of the cerebral cortex (central gyri and paracentral lobule). They include the large pyramidal cells of this area. Their medullated axones are those of the so-called pyramidal tract. These axones descend through the corona radiata, through the anterior two-thirds of the posterior limb of the internal capsule, through the middle portion of the base of the cerebral peduncle, form the bulk of the longitudinal fibres in the basilar part of the pons and the pyramids of the medulla. The majority of the fibres undergo decussation in the medulla and pass down in the lateral funiculus of the opposite side of the cord. Some of the fibres do not decussate but pass down chiefly in the ventral funiculus of the same side of the cord. A few of the uncrossed fibres descend in the lateral funiculus of the same side of the cord. The axones of the pyramidal tract terminate in the gray matter of the pons, medulla, and spinal cord.

The impulses running along the upper motor neurones are transferred to the lower motor neurones. The lower motor neurones have their cell bodies situated in the so-called motor nuclei of the cerebral nerves and in the ventral horns of the spinal cord. Their axones form the motor roots of the cerebral nerves and the ventral roots of the spinal nerves. They run out to the various muscles of the head, trunk, and limbs (Fig. 976).

The frontal cerebro-cortico-pontal path consists of a set of neurones whose cell bodies are situated chiefly in the feet of the frontal gyri. Their medullated axones descend through the corona radiata and through the anterior limb of the internal capsule to the base of the cerebral peduncle occupying its most medial region. These fibres terminate in the pons among the cell bodies of the nuclei pontis.

The temporo- and occipito-cerebro-cortico-pontal path consists of neurones the cell bodies of which are situated in the temporal and occipital lobes of the brain. Their axones descend to

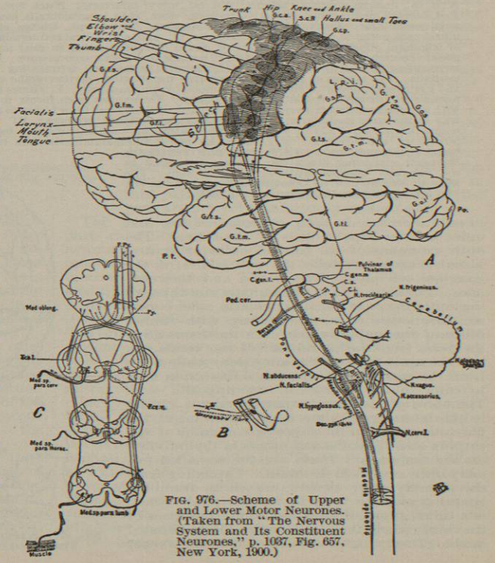

FIG. 976.—Scheme of Upper and Lower Motor Neurones. (Taken from "The Nervous System and Its Constituent Neurones," p. 1037, Fig. 657, New York, 1900.)

the base of the cerebral peduncle, where they form the lateral mass of fibres. Passing through the peduncle they terminate in the nuclei pontis. From the nuclei pontis go off axones through the brachium pontis of the cerebellum, there to communicate with cerebellar neurone systems which in turn are capable of throwing the lower motor neurones under their influence.

A word must be said concerning the commissural neurones and the associative neurones of the telencephalon. Of the commissural neurones the most important are: (1) those whose medullated axones make up the corpus callosum; (2) those whose medullated axones constitute the principal part of the anterior cerebral commissure, and (3) those whose medullated axones make up the commissura hippocampi.

The medullated axones of the corpus callosum connect the two hemispheres with each other, possibly identical portions of the two hemispheres. The anterior commissure of the brain may be looked upon as a supplement of the corpus callosum. It is generally supposed that this commissure connects the temporal lobes, the basal surface of the occipital lobes, and the olfactory bulbs with one another, the corpus callosum connecting similar portions of the rest of both cerebral hemispheres. The fibres of the commissura hippocampi, or so-called "lyre of David," connect the hippocampus of one side with that of the other. It is probably to be regarded as an olfactory commissural path.

The association neurones of the telencephalon connect a portion of one hemisphere with another portion of the same. Some of them have short axones, others have long axones. Those with short axones connect adjacent gyri, those with long axones connect distant gyri, with one another.

The association neurones with short axones include the fibræ propriæ of the cerebral gyri. In the occipital lobe a number of neurone systems with short axones have been worked out. They include the stratum calcarinum, the fasciculus occipitalis verticalis, the fasciculus occipitalis transversus cunei, fasciculus occipitalis transversus gyri lingualis, and the stratum proprium.

The association neurones which have long axones include the cingulum, the fasciculus longitudinalis superior, the fasciculus uncinatus, the association bundles of the fornix, and the tapetum.

The cingulum is an olfactory tract which extends in a sagittal direction in the white matter of the two main parts of the gyrus fornicatus, namely, the gyrus cinguli and the gyrus hippocampi.

The fasciculus longitudinalis superior is a curved bundle extending in a sagittal direction, apparently between the frontal lobe and the occipital lobe (Fig. 977).

The fasciculus longitudinalis inferior is usually described as extending between the lobus occipitalis and the lobus temporalis. The anterior part of the fasciculus, however, is difficult to differentiate, and accordingly its anterior connections are disputed.

The fasciculus uncinatus extends between the uncus and the basal portions of the frontal lobe. It is probably olfactory in function. The fornix contains the medullated axones of many association neurones. One important bundle connects the hippocampus with the substantia perforata anterior and is probably olfactory in function.

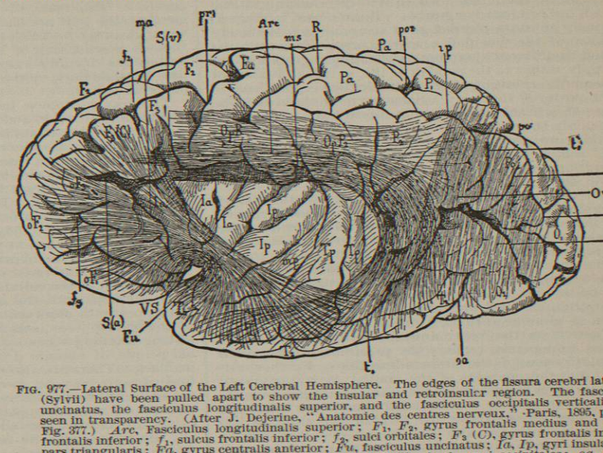

FIG. 977.—Lateral Surface of the Left Cerebral Hemisphere. The edges of the fissura cerebri lateralis (Sylvii) have been pulled apart to show the insular and retroinsular region. The fasciculus uncinatus, the fasciculus longitudinalis superior, and the fasciculus occipitalis verticalis are seen in transparency. (After J. Dejerine, "Anatomie des centres nerveux," Paris, 1895, p. 757, Fig. 377.) *Arc*, Fasciculus longitudinalis superior; F_1, F_2, gyrus frontalis medius and gyrus frontalis inferior; f_1, sulcus frontalis inferior; f_2, sulci orbitales; F_3 (*O*), gyrus frontalis inferior pars triangularis; *Fa*, gyrus centralis anterior; *Fu*, fasciculus uncinatus; *Ia*, *Ip*, gyri insulæ; *ip*, sulcus interparietalis; *ma*, *mp*, *mf*, sulcus circularis Reili; o_1, o_2, gyri occipitales; *oa*, sulcus occipitalis anterior of Wernicke; oF_1, oF_2, oF_3, orbital portion of frontal gyri; *OpR*, operculum, pars frontalis; OpP_2, operculum, pars parietalis; *Op*, fasciculus occipitalis verticalis; P_1, lobulus parietalis superior; P_2, lobulus parietalis inferior; *Pa*, gyrus centralis posterior; *Pc*, gyrus angularis; *Ppo*, fissura parieto-occipitalis; *por*, portion of sulcus interparietalis behind the upper part of the gyrus centralis posterior; *pri*, sulcus præcentralis; *R*, sulcus centralis Rolandi; *S* (*a*), *S* (*o*), anterior and vertical ramus, anterior horizontalis, and ramus anterior ascendens of fissura cerebri lateralis Sylvii; T_1, gyrus temporalis superior; T_2, gyrus temporalis medius; t_1, sulcus temporalis superior; *t*, *t'*, vertical rami of the sulcus temporalis superior; *Tp*, gyri temporales transversi; *VS*, fossa cerebri lateralis Sylvii.

The tapetum is an association bundle connecting the occipital lobe with the frontal lobe (Dejerine).

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