different parts of the kingdom, where they lived for a shorter or longer time. When, from the development of state affairs, the need of a capital came to be felt, no city could compete with the claims of Stockholm. It is the usual residence of the king; in the summer he lives generally in one of the palaces in the neighbourhood; some part of every year he passes in his Norwegian capital. The supreme court of justice has its seat in Stockholm, as well as the *Svea Hofrätt*, the next highest tribunal for central and northern Sweden. It is also the seat of all the other central governmental boards.

Stockholm is also the seat of seven academies. (1) The Swedish Academy, with eighteen members, founded in 1786, deals with the language and literature of Sweden. It is engaged upon a Swedish dictionary, and celebrates every year the memory of some renowned Swede. (2) The academy of sciences, founded in 1739, with 100 ordinary members, distributed into nine classes, and 75 foreign members, has charge of the royal museum of natural history, the physical, astronomical, and meteorological institutes, and the botanical garden. (3) The academy of belles lettres, history, and antiquities, founded in 1753, reformed in 1786, now occupies itself only with history and antiquities; it has 14 honorary members, 20 ordinary members, 16 foreign members and correspondents. The secretary of this academy is, at the same time, royal antiquary of Sweden and garde des médailles, director of the archæological, historical, and numismatical state collections, and inspector of the antiquities of the kingdom. (4) The academy of agriculture, founded in 1811, with 24 honorary members, 136 ordinary and 75 foreign members, occupies itself with agriculture and fisheries. It has an experimental institution for agricultural chemistry, physiology of plants, gardening, and practical agriculture. (5) The academy of fine arts, founded in 1735, has charge of the official school of art. (6) The academy of music, founded in 1771, has the care of the state conservatory of music. (7) The academy of military sciences was founded in 1796. Each of these academies is a distinct body; most of them publish their transactions, and each has its own library.

There are several private societies of a scientific character, such as the society for publication of historical documents, the historical society, the society of anthropology and geography, the society of national antiquities, the geological society, the society of natural sciences, the entomological society, &c.

Stockholm has no state university, but there is a high school of medicine (*Carolinska Institute*), which has several professors of mathematics and natural science. The city has also a high technical school, a technical school, a high military school, and a military school (in the palace of Carlberg, outside of the city), a veterinary school, a school of pharmacy, seven more or less complete secondary schools, and two seminaries for female teachers, besides private schools. The number of pupils in the secondary schools in 1884 was 2294 and in the primary schools 14,851.

The following are the principal public collections. (1) The royal historical museum (in the national museum) contains a remarkably rich series of the prehistoric antiquities of the country. Founded in the 17th century, it has made greatest progress since 1837. (2) The royal numismatical collection (in the national museum) contains about 90,000 coins and medals. The series of Anglo-Saxon coins found in Sweden is very important. (3) The numismatical collection of the Bank of Sweden (in the bank offices) contains very good series of Swedish coins and medals. (4) The royal collection of armour and royal dresses (in the royal palace) is very rich in specimens of the 17th and 18th centuries. (5) The royal museum of fine and industrial arts (in the national museum) contains sculptures, pictures, engravings, drawings, &c. The collection of Swedish art is, of course, very rich. Of foreign schools that of the Netherlands is best represented. The collection illustrating the development of industrial arts consists principally of gifts of Charles XV. and Count A. Bjelke. (6) The royal museum of natural history (in the palace of the academy of sciences), with very rich zoological, botanical, palæontological, and mineral series, is exceedingly rich in objects from the arctic regions. Other collections deserving mention are (7) the museum of the geological survey of Sweden; (8) the museum of the school of medicine; (9) the northern museum, a private institution, a very rich collection representing the life of all social classes of the north; (10) the royal library, very rich in books and manuscripts; and (11) the royal archives.

See Elers, *Stockholm*, 4 vols., 1800-1801; Perlin, *Stockholms Stad; Berättelser angående Stockholms Kommunalförvaltning*. (H. Hi.).

STOCKINGS. See HOSIERY.

STOCKPORT, a market-town and municipal and parliamentary borough of England, in Cheshire and partly in Lancashire, is situated on an elevation above the Mersey at the junction of the Tame and Goyt, and of a number of railway lines, 46 miles east-north-east of Chester, 37 east of Liverpool, and 6 south-south-east of Manchester. Owing to the lie of the ground the streets are very irregular and uneven, and occasionally precipitous, while in the south they rise above the river in tiers. The Mersey is crossed by a number of bridges, including one of eleven arches opened in 1826 at a cost of £40,000. None of the ecclesiastical buildings are of special interest, the principal being the church of St Mary, erected in 1817, at a cost of £30,000, on the site of one of the 15th century, of which the chancel and vestry remain. The free grammar school was founded and endowed in 1487 by Sir Edward Shaa or Shaw, knight. The present building was erected in 1831 by the Goldsmiths' Company, who further endowed it with £290 a year, and handed it over to the corporation. The Stockport Sunday school, erected in 1805, has accommodation for 4000 scholars. There is a free public library, established in 1875. The principal public buildings are the court-house, the market-house, the union workhouse, the mechanics' institute, the infirmary, the institution for the blind and deaf and dumb, and the fine new public baths. In St Peter's Square there is a statue, unveiled 27th November 1886, of Richard Cobden, who was elected member for the borough in 1841 and 1847. Vernon Park, finely situated about a mile from the town, contains a free museum, built in 1858 at the expense of the members for the borough, and since enlarged by the corporation. The staple industries are the spinning and weaving of cotton and felt-hat making. There are also breweries, foundries, machine-works, and flour-mills. The limits of the municipal and parliamentary boroughs are co-extensive. The area is 2200 acres, with a population in 1871 of 53,014 and in 1881 of 59,553.

Though not referred to in any of the Roman itineraries, and possessing neither Roman nor Saxon remains, Stockport is supposed to have been a Roman camp or outpost, which occupied the hill on which the Normans afterwards built a baronial castle. It is not mentioned in Domesday. The castle was held in 1173 by Geoffrey de Costentyn against Henry II., but whether in his own right or not is uncertain. In the beginning of the 13th century it was possessed by the first Baron Ranulf de Dapifer, progenitor of the Despensers, from whom it passed to Robert de Stockeport, who in the reign of Henry III. made the town a free borough, and in 1260 received for it from the earl of Chester the grant of a market. The town was visited by the plague in 1605–6. It was of some importance during the Civil War, and was taken by the Royalists under Prince Rupert in May 1644. During the insurrection of 1745 Prince Charles Edward rested at the town on the 28th November. The town was enfranchised in 1832, with the right, which it still retains, of returning two members, and was incorporated under the Corporations Act in 1835.

STOCKS, as a form of punishment, are now quite obsolete. They were originally established in England after the passing of the Statute of Labourers, 23 Edw. III. c. 1. That Act enjoined that stocks (*ceppes*) should be made in every town between the passing of the Act and Pentecost of that year (1350). By numerous other statutes, until comparatively modern times, the punishment of the stocks was inflicted for offences of a less heinous kind, *e.g.*, breaches of the Sunday Observance Acts of Charles I. and Charles II. In the United States the stocks were formerly used as a means of punishing slaves.

STOCKTON, a city of the United States, county seat of San Joaquin county, California, at the head of the Stockton navigable channel which joins the San Joaquin river, and 48 miles south-south-east of Sacramento, by the western division of the Central Pacific Railroad. It is the business centre of the San Joaquin valley, a great wheat market, and the seat of the State lunatic asylum (founded in 1853). Artesian wells 80 to 1000 feet deep provide the city with a perennial supply of water. Two public libraries, several public schools, and a convent may be mentioned among its important institutions; and it manufactures leather, agricultural implements, paper, flour, &c. The population was 10,066 in 1870 and 10,282 in 1880. Stockton was laid out in 1849, and was incorporated as a city in 1850.



STOCKTON-ON-TEES, a market-town and municipal and parliamentary borough and seaport of Durham, on the borders of the North Riding of Yorkshire, into which the parliamentary borough extends, is situated on the Tees, which is crossed by an iron bridge (completed in 1887 at a cost over £80,000, to supersede the stone bridge of 1769) leading to South Stockton, and on the Stockton and Darlington and the Sunderland and West Hartlepool branches of the North-Eastern Railway, 20 miles south-south-east of Durham, and 4 miles west-south-west of Middlesborough. The principal street is about a mile in length. Of the ancient castle commanding the Tees, which was destroyed in 1652, the last remains were removed in 1865. Among the principal public buildings are the town-hall, with a clock-tower and spire, the borough hall (erected in 1852 at a cost of £32,000), the freemasons' hall, the temperance hall, the theatre, the exchange hall, the literary institute, the hospital, the dispensary, the free library, and the blue-coat school. Stockton is a seaport of considerable importance. The management of the Tees, vested in 1808 in the Tees Navigation Company, was in 1852 vested in the Tees Conservancy Commissioners, incorporated by Act of Parliament, under whose auspices the river has been greatly improved. The trade of the port is chiefly with Holland and the ports of the Baltic, and there is a considerable coasting trade with the Tyne ports and with Hull and London. Its chief exports are iron manufactures, coal, coke, and agricultural produce, the average annual value for the five years 1880–84 being about £72,000. The principal imports are timber, iron, grain, and provisions, the average annual value for the five years 1880–84 being about £240,000. In 1885 the number of vessels that entered the port was 649, of 149,628 tons, the number that cleared 700, of 175,647 tons. The rapid increase of the town within the last quarter of a century is largely owing to the development of the iron and steel trade in the district. There are extensive steel works, blast-furnaces, iron and brass foundries, and rolling-mills, and iron-shipbuilding is also an important industry. There are also sailcloth works, potteries, breweries, and brick and tile works. The population of the municipal borough (area 1189 acres) in 1871 was 27,738, and in 1881 it was 41,015. The population of the parliamentary borough (area 7157 acres) in the same years was 37,612 and 55,457. The parliamentary borough includes the suburb of South Stockton on the opposite side of the river, forming a separate urban sanitary district (area 1052 acres), with a population in 1871 of 6794 and in 1881 of 10,665. It has a temperance hall, a mechanics' institute, and a national school, and its manufactures are similar to those of Stockton.

The place is of great antiquity, and is supposed to have been occupied by the Romans. Before the Conquest the manor belonged to the see of Durham. It was probably first incorporated by Bishop Hugh de Pudsey, who in the reign of Richard I. occupied the castle. The castle, which was for a long time the residence of the bishops, stood on the north bank of the Tees. The town was destroyed by the Scots in 1322, but the castle seems to have escaped. During the Civil War it was garrisoned for the king, but was afterwards delivered up to the Parliamentary party, and in 1645 was held by the Scots. The town suffered severely from inundations of the Tees in 1771, 1783, and 1822. Though Stockton was placed under the Municipal Act of 1835 it remained divided into two parts, the one called the "borough," where the land was freehold, governed by the corporation, and the other called the "town," where the land was copyhold or leasehold, held under the vicar and vestrymen, and outside the corporate jurisdiction. To remedy this state of matters an "Extension and Improvement Act" was passed in 1852. The town was enfranchised in 1867, and returns one member.

STOICS, a school of philosophers founded at the close of the 4th century B.C. by Zeno of Citium, and so called from the Stoa or painted corridor (στοὰ ποικίλη) on the north side of the market-place at Athens, which, after its restoration by Cimon, the celebrated painter Polygnotus had adorned with frescos representing scenes from the Trojan War. But, though it arose on Hellenic soil, from lectures delivered in a public place at Athens, the school is scarcely to be considered a product of purely Greek intellect, but rather as the firstfruits of that interaction between West and East which followed the conquests of Alexander. Hardly a single Stoic of eminence was a citizen of any city in the heart of Greece, unless we make Aristo of Chios, Cleanthes of Assus, and Panætius of Rhodes exceptions. Such lands as Cyprus, Cilicia, and Syria, such cities as Citium, Soli, Heraclea in Pontus, Sidon, Carthage, Seleucia on the Tigris, Apamea by the Orontes, furnished the school with its scholars and presidents; Tarsus, Rhodes, and Alexandria became famous as its university towns. As the first founder was of Phœnician descent, so he drew most of his adherents from the countries which were the seat of Hellenistic (as distinct from Hellenic) civilization; nor did Stoicism achieve its crowning triumph until it was brought to Rome, where the grave earnestness of the national character could appreciate its doctrine, and where for two centuries or more it was the creed, if not the philosophy, of all the best of the Romans. Properly therefore it stands in marked antithesis to that fairest growth of old Hellas, the Academy, which saw the Stoa rise and fall,—the one the typical school of Greece and Greek intellect, the other of the Hellenized East, and, under the early Roman empire, of the whole civilized world. The transcendent genius of its author, the vitality and romantic fortunes of his doctrine, claim our warmest sympathies for Platonism. But it should not be forgotten that for more than four centuries the tide ran all the other way. It was Stoicism, not Platonism, that filled men's imaginations, and exerted the wider and more active influence upon the ancient world at some of the busiest and most important times in all history. And this was chiefly because before all things it was a practical philosophy, a rallying point for strong and noble spirits contending against odds. Nevertheless, in some departments of theory, too, and notably in ethics and jurisprudence, Stoicism has dominated the thought of after ages to a degree not easy to exaggerate.

The history of the Stoic school may conveniently be divided in the usual threefold manner: the old Stoa, the middle or transition period (Diogenes of Seleucia, Boethus of Sidon, Panætius, Posidonius), and the later Stoicism of Roman times. By the old Stoa is meant the period (*c.* 304–205 B.C.) down to the death of Chrysippus, the second founder; then was laid the foundation of theory, to which hardly anything of importance was afterwards added. Confined almost to Athens, the school made its way slowly among many rivals. Aristo of Chios and Herillus of Carthage, Zeno's heterodox pupils, Persæus, his favourite disciple and housemate, the poet Aratus, and Sphærus, the adviser of the Spartan king Cleomenes, are noteworthy minor names; but the chief interest centres about Zeno, Cleanthes, Chrysippus, who in succession built up the wondrous system. What originality it had—at first sight it would seem not much—belongs to these thinkers; but the loss of all their works except the hymn of Cleanthes, and the inconsistencies in such scraps of information as can be gleaned from unintelligent witnesses, for the most part of many centuries later, have rendered it a peculiarly difficult task to distinguish with certainty the work of each of the three. The common standpoint, the relation to contemporary or earlier systems, with all that goes to make up the character and spirit of Stoicism, can, fortunately, be more certainly established, and may with reason be attributed to the founder. Zeno's residence at Athens

fell at a time when the great movement which Socrates originated had spent itself in the second generation of his spiritual descendants. Neither Theophrastus at the Lyceum, nor Xenocrates and Polemo at the Academy, nor Stilpo, who was drawing crowds to hear him at Megara, could be said to have inherited much of the great reformer's intellectual vigour, to say nothing of his moral earnestness. Zeno visited all the schools in turn, but seems to have attached himself definitely to the Cynics; as a Cynic he composed at least one of his more important works, "the much admired *Republic*," which we know to have been later on a stumbling-block to the school. In the Cynic school he found the practical spirit which he divined to be the great need of that stirring troublous age. For a while his motto must have been "back to Socrates," or at least "back to Antisthenes." The Stoics always counted themselves amongst the Socratic schools, and canonized Antisthenes and Diogenes; while reverence for Socrates was the tie which united to them such an accomplished writer upon lighter ethical topics as the versatile Persæus, who, at the capital of Antigonus Gonatas, with hardly anything of the professional philosopher about him, reminds us of Xenophon, or even Prodicus. Zeno commenced, then, as a Cynic; and in the developed system we can point to a kernel of Cynic doctrine to which various philosophemes of other thinkers (more especially Heraclitus and Aristotle, but also Diogenes of Apollonia, the Pythagoreans, and the medical school of Hippocrates in a lesser degree) were added. Thus, quite apart from the general similarity of their ethical doctrine, the Cynics were materialists; they were also nominalists, and combated the Platonic ideas; in their theory of knowledge they made use of "reason" (λόγος), which was also one of their leading ethical conceptions. In all these particulars Zeno followed them, and the last is the more important, because, Chrysippus having adopted a new criterion of truth,—a clear and distinct perception of sense,—it is only from casual notices we learn that the elder Stoics had approximated to Cynicism in making right reason the standard. At the same time, it is certain that the main outlines of the characteristic physical doctrine, which is after all the foundation of their ethics and logic, were the work of Zeno. The Logos, which had been an ethical or psychological principle to the Cynics, received at his hands an extension throughout the natural world, in which Heraclitean influence is unmistakable. Reading the Ephesian doctrine with the eyes of a Cynic, and the Cynic ethics in the light of Heracliteanism, he came to formulate his distinctive theory of the universe far in advance of either. In taking this immense stride and identifying the Cynic "reason," which is a law for man, with the "reason" which is the law of the universe, Zeno has been compared with Plato, who similarly extended the Socratic "general notion" from the region of morals,—of justice, temperance, virtue,—to embrace all objects of all thought, the verity of all things that are. If the recognition of physics and logic as two studies co-ordinate with ethics is sufficient to differentiate the mature Zeno from the Cynic author of the *Republic*, no less than from his own heterodox disciple Aristo, the elaboration on all sides of Stoic natural philosophy belongs to Cleanthes, who certainly was not the merely docile and receptive intelligence he is sometimes represented as being. He carried on and completed the assimilation of Heraclitean doctrine; but his own contributions were more distinctive and original than those of any other Stoic. Zeno's seeming dualism of God (or force) and formless matter he was able to transform into the lofty pantheism which breathes in every line of the famous hymn to Zeus. Heraclitus had indeed declared all to be in flux, but we ask in vain what is the cause for the unceasing process of his ever-living fire. It was left for Cleanthes to discover this motive cause in a conception familiar to Zeno, as to the Cynics before him, but restricted to the region of ethics,—the conception of tension or effort. The soul of the sage, thought the Cynics, should be strained and braced for judgment and action; his first need is firmness (εὐτονία) and Socratic strength. But the mind is a corporeal thing. Then followed the flash of genius: this varying tension of the one substance everywhere present, a purely physical fact, accounts for the diverse destinies of all innumerable particular things; it is the veritable cause of the flux and process of the universe. Herein lies the key to the entire system of the Stoics, as Cleanthes's epoch-making discovery continually received fresh applications to physics, ethics, and epistemology. Other of his innovations, the outcome of his crude materialism, found less favour with his successor, who declined to follow him in identifying the primary substance with fire, or in tracing all vitality to its ultimate source in the sun, the "ruling power" of the world,—a curious anticipation of scientific truth. Yet under this poetical Heraclitean mystic the school was far from flourishing. The eminent teachers of the time are said to have been Aristo, Zeno's heterodox pupil, and Arcesilas, who in Plato's name brought Megarian subtleties and Pyrrhonian agnosticism to bear upon the intruding doctrine; and after a vigorous upgrowth it seemed not unlikely to die out. From all danger of such a fate it was rescued by its third great teacher, Chrysippus; "but for Chrysippus there had been no Porch." Zeno had caught the practical spirit of his age,—the desire for a popular philosophy to meet individual needs. But there was another tendency in post-Aristotelian thought,—to lean upon authority and substitute learning for independent research,—which grew stronger just in proportion as the fresh interest in the problems of the universe and the zeal for discovery declined,—a shadow, we may call it, of the coming Scholasticism thrown a thousand years in advance. The representative of this tendency, Chrysippus addressed himself to the congenial task of assimilating, developing, systematizing the doctrines bequeathed to him, and, above all, securing them in their stereotyped and final form, not simply from the assaults of the past, but, as after a long and successful career of controversy and polemical authorship he fondly hoped, from all possible attack in the future. To his personal characteristics can be traced the hair-splitting and formal pedantry which ever afterwards marked the activity of the school, the dry repellent technical procedure of the Dialecticians *par excellence*, as they were called. He created their formal logic and contributed much that was of value to their psychology and epistemology; but in the main his work was to new-label and new-arrange in every department, and to lavish most care and attention on the least important parts,—the logical terminology and the refutation of fallacies, or, as his opponents declared, the excogitation of fallacies which even he could not refute. In his *Republic* Zeno had gone so far as to declare the routine education of the day (*e.g.*, mathematics, grammar, &c.) to be of no use. Such Cynic crudity Chrysippus rightly judged to be out of keeping with the requirements of a great dogmatic school, and he laboured on all sides after thoroughness, erudition, and scientific completeness. In short, Chrysippus made the Stoic system what it was, and as he left it we proceed to describe it.

And first we will inquire, What is philosophy? No idle gratification of curiosity, as Aristotle fabled of his life intellectual (which would be but a disguise for refined pleasure), no theory divorced from practice, no pursuit of science for its own sake, but knowledge so far forth as it



can be realized in virtuous action, the learning of virtue by exercise and effort and training. So absolutely is the "rare and priceless wisdom" for which we strive identical with virtue itself that the three main divisions of philosophy current at the time and accepted by Zeno,—logic, physics, and ethics,—are defined as the most generic or comprehensive *virtues*. How otherwise could they claim our attention? Accordingly Aristo, holding to Cynicism when Zeno himself had got beyond it, rejected two of these parts of philosophy as useless and out of reach,—a divergence which excluded him from the school, but strictly consistent with his view that ethics alone is scientific knowledge. Of the three divisions logic is the least important; ethics is the outcome of the whole, and historically the all-important vital element; but the foundations of the whole system are best discerned in the science of nature, which deals pre-eminently with the macrocosm and the microcosm, the universe and man, including natural theology and an anthropology or psychology, the latter forming the direct introduction to ethics.

The Stoic system is in brief—(*a*) materialism, (*b*) dynamic materialism, lastly (*c*) monism or pantheism. (*a*) The first of these characters is described by anticipation in Plato's *Sophist* (246 C *sq.*), where, arguing with those "who drag everything down to the corporeal" (σῶμα), the Eleatic stranger would fain prove to them the existence of something incorporeal, as follows. "They admit the existence of an animate body. Is soul then something existent (οὐσία)? Yes. And the qualities of soul, as justice and wisdom—are they visible and tangible? No. Do they then exist? They are in a dilemma." Now, however effective against Plato's contemporary Cynics or Atomists, the reasoning is thrown away upon the Stoics, who take boldly the one horn of this dilemma. That qualities of bodies (and therefore of the corporeal soul) exist they do not deny; but they assert most uncompromisingly that they are one and all (wisdom, justice, &c.) corporeal. And they strengthen their position by taking Plato's own definition (247 D), namely, "being is that which has the power to act or be acted upon," and turning it against him. For this is only true of Body; action, except by contact, is inconceivable; and they reduce every form of causation to the efficient cause, which implies the communication of motion from one body to another. Again and again, therefore, only Body exists. The most real realities to Plato and Aristotle had been thought and the objects of thought, νοῦς and νοητά, whether abstracted from sensibles or inherent in "matter," as the incognizable basis of all concrete existence. But this was too great an effort to last long. Such spiritualistic theories were nowhere really maintained after Aristotle and outside the circle of his immediate followers. The reaction came and left nothing of it all; for five centuries the dominant tone of the older and the newer schools alike was frankly materialistic. "If," says Aristotle, "there is no other substance but the organic substances of nature, physics will be the highest of the sciences," a conclusion which passed for axiomatic until the rise of Neoplatonism. The analogues therefore of metaphysical problems must be sought in physics; particularly that problem of the causes of things for which the Platonic idea and the Peripatetic "constitutive form" had been in turn received solutions. (*b*) But the doctrine that all existence is confined within the limits of the sensible universe,—that there is no being save corporeal being or body,—does not suffice to characterize the Stoic system; it is no less a doctrine of the Epicureans. It is the idea of tension as the essential attribute of body, in contradistinction to passive inert matter, which is distinctively Stoic. The Epicureans leave unexplained the primary constitution and first movements of their atoms or elemental solids; chance or declination may account for them. Now, to the Stoics nothing passes unexplained; there is a reason (λόγος) for everything in nature. Everything which exists is at once capable of acting and being acted upon. In everything that exists, therefore, even the smallest particle, there are these two principles. By virtue of the passive principle the thing is susceptible of motion and modification; it is matter which determines substance (οὐσία). The active principle makes the matter a given determinate thing, characterizing and qualifying it, whence it is termed quality (ποιότης). For all that is or happens there is an immediate cause or antecedent; and as "cause" means "cause of motion," and only body can act upon body, it follows that this antecedent cause is itself as truly corporeal as the matter upon which it acts. Thus we are led to regard the active principle "force" as everywhere co-extensive with "matter," as pervading and permeating it, and together with it occupying and filling space. This is that famous doctrine of universal permeation (κρᾶσις δι' ὅλου), by which the axiom that two bodies cannot occupy the same space is practically denied. Thus that harmony of separate doctrines which contributes to the impressive simplicity of the Stoic physics is only attained at the cost of offending healthy common sense, for Body itself is robbed of a characteristic attribute. A thing is no longer, as Plato once thought, hot or hard or bright by partaking in abstract heat or hardness or brightness, but by containing within its own substance the material of these qualities, conceived as air-currents in various degrees of tension. We hear, too, of corporeal days and years, corporeal virtues, and actions (like walking) which are bodies (σώματα). Obviously, again, the Stoic quality corresponds to Aristotle's essential form; in both systems the active principle, "the cause of all that matter becomes," is that which accounts for the existence of a given concrete thing (λόγος τῆς οὐσίας). Only here, instead of assuming something immaterial (and therefore unverifiable), we fall back upon a current of air or gas (πνεῦμα); the essential reason of the thing is itself material, standing to it in the relation of a gaseous to a solid body. Here, too, the reason of things—that which accounts for them—is no longer some external end to which they are tending; it is something acting within them, "a spirit deeply interfused," germinating and developing as from a seed in the heart of each separate thing that exists (λόγος σπερματικός). By its prompting the thing grows, develops, and decays, while this "germinal reason," the element of quality in the thing, remains constant through all its changes. (*c*) What then, we ask, is the relation between the active and the passive principles? Is there, or is there not, an essential distinction between substance or matter and pervading force or cause or quality? Here the Stoa shows signs of a development of doctrine. Zeno began, perhaps, by adopting the formulas of the Peripatetics, though no doubt with a conscious difference, postulating that form was always attached to matter, no less than matter, as known to us, is everywhere shaped or informed. Whether he ever overcame the dualism which the sources, such as they are, unanimously ascribe to him is not clearly ascertained. It seems probable that he did not. But we can answer authoritatively that to Cleanthes and Chrysippus, if not to Zeno, there was no real difference between matter and its cause, which is always a corporeal current, and therefore matter, although the finest and subtlest matter. In fact they have reached the final result of unveiled hylozoism, from which the distinction of the active and passive principles is discerned to be a merely formal concession to Aristotle, a legacy from his dualistic doctrine. His technical term Form (εἶδος) they never use, but always Reason or God. This was not the first time

Matter and force.