sometimes flows for two years together, and then dries up for an equal period.

Spring, in *Mechanics,* denotes a thin piece of tempered steel, or other elastic substance, whieh, being wound up, serves to put machines in motion by its elasticity, or endeavours to unbend itself. Such is the spring of a watch, clock, or the like.

SPRING, *Ver,* in cosmography, denotes one of the seasons of the year ; commencing, in the northern parts of the world, on the day when the sun enters the first degree of Aries, which is about the 10th day of March, and ending when the sun leaves Gemini ; or, more strictly and gene rally, the spring begins on the day when the distance of the sun’s meridian altitude from the zenith, being on the increase, is at a medium between the greatest and least. The end of the spring coincides with the beginning of summer.

SPRIT, a small boom or pole which crosses the sail of a boat diagonally, from the mast to the upper hindmost corner of the sail, which it is used to extend and elevate ; the lower end of the sprit rests in a sort of wreath or collar, called the *smotter,* which encircles the mast in that place.

SPURZHEIM, John Gaspar, the pupil and colleague of Dr. Gall in the elucidation of the structure and functions of the brain, was born near Treves, on the 31st of December 1776. His father, who cultivated a farm in that district, at first intended him for the church ; but, after prosecuting his studies with this view, a change of purpose took place, and young Spurzheim went in 1799 to acquire a medical education at Vienna, where he soon became acquainted with Dr. Gall. The views of that physician concerning the brain proved so interesting to him, that, after be stowing attention upon them for several years, lie at length, in 1804, became the associate of his master. In the following year, when Gall was forced by the Austrian government to leave Vienna (See Gall, F. J.), Spurzheim accompanied him in his travels through Germany, France, and Denmark. In 1807 they settled in Paris, and next year presented to the Institute a memoir of their anatomical discoveries. A committee, of which Cuvier was the leading member, was appointed to give an opinion of it : a transla­tion of their unfavourable, and, as the phrenologists say, un candid report, will be found in the Edinburgh Medical and Surgical Journal for January 1809∙ This report being unsatisfactory to Gall and Spurzheim, they published their memoir, and a defence of it, under the title of “ Recherches sur le Système Nerveux en général, et sur celui du Cerveau en particulier,” 4to, 1809. In 1810 was commenced the publication of the “ Anatomie et Physiologie du Système Nerveux en général, et du Cerveau en particulier ; par F. J. Gall et G. Spurzheim,” 4to; a work which was not completed till 1819. The third and fourth volumes were published after Spurzheim’s separation from Gall in 1813, and bear the name of the latter alone. It is illustrated by a magnificent folio atlas, containing 100 plates. The physiological portion of this work was afterwards reprinted in 6 vols. 8vo, by Dr. Gall, with his own name only, under the title “ Sur les Fonctions du Cerveau.”

Having left Dr. Gall, Spurzheim, after taking his degree of doctor of physic at Vienna, came over to Britain in 1814, for the purpose of diffusing the new doctrines about the brain. His first step was the publication of “ The Physiognomical System of Drs. Gall and Spurzheim,” 8vo, Lon don, 1815; followed by “ Outlines of the Physiognomical System,” 12mo, 1815, and “ Observations on the Deranged Manifestations of Mind, or Insanity,” 8vo, 1817. The anatomical and physiological views expounded in the first of these works, having been violently assailed by the late Dr. John Gordon in the 25th volume of the Edinburgh Review, Spurzheim suddenly made his appearance in the northern metropolis, and in the lectureroom of his opponent

demonstrated by dissection the accuracy of his anatomical assertions. To the hostile article referred to, he also replied at considerable length in his “ Examination of the Objections made in Britain against the Doctrines of Gall and Spurzheim,” 8vo, Edinb. 1817. After lecturing in London, Dublin, Edinburgh, and other towns in the United King dom, he returned in 1817 to Paris, where he continued to lecture and publish till 1825. The works which he produced during this period are, “ Observations sur la Folie, ou sur les Dérangemens des Fonctions Morales et Intellectuellesde l’Homme,” 8vo, 1818; “ Observations sur la Phré­nologie, ou la Connaissance de l’Homme Morale et In­tellectuel, fondée sur les Fonctions du Système Nerveux,” 8vo, 1818; and “ Essai Philosophique sur la Nature Morale et Intellectuelle de l’Homme,” 8vo, 1820. His English work, entitled, “ View of the Elementary Principles of Edu cation, founded on the Study of the Nature of Man,” 12mo, appeared at Edinburgh in 1821, and was reprinted, with considerable additions, in 8vo, at London, in 1828. A French edition was published at Paris in 1822. A prohibition in 1824, by the French government, of the delivery of lectures without its special permission, obliged Spurzheim to confine himself to private conversations in his own house, and induced him in the following year to revisit Britain. While residing in London, where he gave several courses of Iectures and dissections of the brain, he produced his “ Phrenology, or the Doctrine of the Mind and of the Relations between its Manifestations and the Body,” and “A View of the Philosophical Principles of Phrenology,” both 8vo, 1825 : these are extended editions of some of the chapters of the Physiognomical System. He returned to Paris, but again visiting England in 1826, lectured to overflowing audiences in the London Institution, and in the same year published “ Phrenology in Connexion with the Study of Physiognomy,” 8vo, with 34 plates; also “ The Anatomy of the Brain, with a General View of the Nervous System,” 8vo, with 11 plates. Towards the end of this year, he lectured at Cambridge ; and after expounding his views in Bath and Bristol, deliver ed, in April 1827, a course of lectures to seven hundred auditors, in the London Institution. His“ Outlines of Phrenology” were published in the same year, at the close of which he visited Hull, whence he once more proceeded to Edin burgh, delivering in that city two courses of popular Iectures, besides a professional course on the anatomy, physio logy, and pathology of the brain. From Edinburgh he proceeded to Glasgow, and afterwards to London, where he had now fixed his residence. In 1828 appeared his “ Sketch of the Natural Laws of Man,’ 12nso; and on 14th May 1829, a paper of his on the brain was read before the Royal Society, into whose Transactions, however, it was re fused admittance. It was published by Dr. Spurzheim as an appendix to his “Anatomy of the Brain,” along with some pretty free “ Remarks on Mr. Charles Bell’s Animadversions on Phrenology.” He this year lectured in many English towns, and in the following spring accepted of an invitation to Dublin, where he was created an honorary member of the Royal Irish Academy. After again lecturing there in 1831, he fixed his residence in Paris, and published in 1832 a small “ Manuel de Phrénologie,” which is the lost of his works. For the twofold purpose of diffusing phrenology and studying the American character and institutions, he sailed for the United States on 20th June 1832. Unfortunately the climate proved detrimental to his constitution, which was injured still more by over-exertion, and incautious exposure while lecturing at Boston ; the consequence was a fever, which terminated in his death on the 10th of November 1832. His remains were honoured at Boston with a public funeral, at which an oration was delivered by Dr. Follen, professor of German in Harvard University.

As a phrenologist, Dr. Spurzheim is generally regarded by his British disciples as having improved the philosophi