

is stretched a network of tightly drawn strips of leather. At a convention held in Montreal on 30th December 1871 a rule was passed that a "pair of racing shoes, including strings, shall not weigh less than 1½ lb nor measure less than 10 inches of gut in width." The motion of a snow-shoer in the distance is curious and resembles that of some ungainly web-footed animal. On using the implements the knees must be turned inwards and the fore part of the feet outwards to avoid wounding the ankles with the frameworks. At first the fatigue and consequent stiffness are great; but with practice this wears off and the motions become easy. The speed attained as compared to that in skating is not quick. The following are the best recorded times in Montreal, Canada, with shoes of regulation size and weight:—100 yards, 12 sec.; 220 yards, 26 sec.; ½ mile, 1 min. 7½ sec.; ¾ mile, 2 min. 33 sec.; 1 mile, 4 min. 21 sec.; 1½ mile, 5 min. 42½ sec.; 2 miles, 11 min. 52½ sec.; 3 miles, 20 min. 18 sec.; 4 miles, 27 min. 10 sec.; 4½ miles, 30 min. 36 sec.; 5 miles, 33 min. 49½ sec. The best history of the pastime and its records is *Montreal Snow-shoe Club*, sm. 8vo, Montreal, 1882.

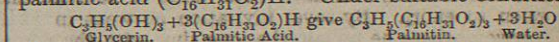
SNUFF. See TOBACCO.

SNYDERS, FRANZ (1579-1657), painter of animals and still life, was born at Antwerp in 1579. In 1593 he was studying under Peter Breughel, and afterwards he received instruction from Henry van Balen, the first master of Vandyke. He devoted himself to painting flowers, fruit, and subjects of still life, but afterwards turned to animal-painting, and executed with the greatest skill and spirit hunting pieces and combats of wild animals. His composition is rich and varied, his drawing correct and vigorous, his touch bold and thoroughly expressive of the different textures of the furs and skins of the animals represented. His excellence in this department excited the admiration of Rubens, who frequently employed him to paint animals, fruit, and still life in his own pictures, and he assisted Jordaens in a similar manner. In the lion and boar hunts which bear the name of Snyders the hand of Rubens sometimes appears. He was appointed principal painter to the archduke Albert, governor of the Low Countries, for whom he executed some of his finest works. One of these, a Stag-Hunt, was presented to Philip III., who commissioned the artist to paint several subjects of the chase, which are still preserved in Spain. Snyders died at Antwerp in 1657.

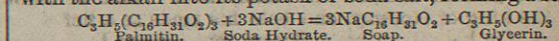
SOAP may in general terms be defined as a chemical compound resulting from the union of fatty oils and fats with alkaline bodies. In a scientific definition the compounds of fatty acids with basic metallic oxides, lime, magnesia, lead oxide, &c., should also be included under soap; but, as these compounds are insoluble in water, while the very essence of a soap in its industrial relations is solubility, it is better to speak of the insoluble compounds as "plasters," limiting the name "soap" to the compounds of fatty acids with soda and potash. Soap both as a medicinal and as a cleansing agent was known to Pliny (*H.N.*, xxviii. 51), who speaks of two kinds—hard and soft—as used by the Germans. He mentions it as originally a Gallic invention for giving a bright hue to the hair ("rutilandis capillis"). There is reason to believe that soap came to the Romans from Germany, and that the detergents in use in earlier times and mentioned as soap in the Old Testament (*Jer.* ii. 22; *Mal.* iii. 2, &c.) refer to the ashes of plants and other such purifying agents (*comp.* vol. x. p. 697).

Till Chevreul's classical researches on fatty bodies (1811-23) it was believed that soap consisted simply of a binary compound of fat and alkali. Claude J. Geoffroy in 1741 pointed out that the fat or oil recovered from a soap solution by neutralization with a mineral acid differs from

the original fatty substance by dissolving readily in alcohol, which is not the case with ordinary fats and oils. The significance of this observation was overlooked, and equally unheeded was a not less important discovery by Scheele in 1783. In preparing lead plaster by boiling olive oil with oxide of lead and a little water—a process palpably analogous to that of the soap-boiler—he obtained a sweet substance which, called by himself "Oelsüss" ("principium dulce oleorum"), is now known as "glycerin." These discoveries of Geoffroy and Scheele formed the basis of Chevreul's researches by which he laid bare the constitution of oils and the true nature of soap. (See OILS, vol. xvii. p. 740, and GLYCERIN, vol. x. p. 697.) In those articles it is pointed out that all fatty oils and fats are mixtures of glycerides, that is, of bodies related to the alcohol glycerin $C_3H_7(OH)_3$, and some fatty acids such as palmitic acid $(C_{16}H_{31}O_2)H$. Under suitable conditions



The corresponding decomposition of palmitin into palmitic acid and glycerin takes place when the glyceride is distilled in superheated steam, and similarly it can be realized by boiling in water mixed with a suitable proportion of caustic potash or soda. But in this case the fatty acid unites with the alkali into its potash or soda salt, forming a soap—



Of the natural fats or glycerides contained in oils the most important in addition to palmitin are stearin and olein, and these it may be sufficient to regard as the principal fatty bodies concerned in soap-making.

The general characters of a soap are a certain greasiness to the touch, ready solubility in water, with formation of viscid solutions which on agitation yield a tenacious froth or "lather," an indisposition to crystallize, readiness to amalgamate with small proportions of hot water into homogeneous slimes, which on cooling set into jellies or more or less consistent pastes. Soaps give an alkaline reaction and have a decided acrid taste; in a pure condition—a state never reached in practice—they have neither smell nor colour. Almost without exception potash soaps even if made from the solid fatty acids are "soft," and soda soaps, although made with fluid olein, are "hard"; but there are considerable variations according to the prevailing fatty acid in the compound. Almost all soda soaps are precipitated from their watery solutions by the addition of a sufficiency of common salt. Potash soap with the same reagent undergoes double decomposition—a proportion being changed into a soda soap with the formation of chloride of potassium. Soap when dissolved in a large amount of water suffers hydrolysis, with formation of a precipitate of alkaliferous fatty acid and a solution containing free alkali. Its cleansing power is ordinarily explained by this reaction; but it is difficult to see why a solution which has just thrown off most of its fatty acids should be disposed to take up even a glyceride. It is more likely that the cleansing power of soap is due to the inherent property of its solution to emulsionize fats.

Resin soaps are compounds of soda or potash with the complex acids (chiefly abietic) of which coniferous resins consist. Their formation is not due to a true process of saponification; but they occupy an important place in compound soaps.

MANUFACTURE.—The varieties of soaps made are numerous; the purposes to which they are applied are varied; the materials employed embrace a considerable range of oils, fats, and other bodies; and the processes adopted undergo many modifications. As regards processes of manufacture soaps may be made by the direct combination of fatty acids, separated from oils, with alkaline solutions. In the manufacture of stearin for candles, &c., the fatty matter is decomposed, and the liquid olein, separated from the solid fatty acids, is employed as an ingredient in soap-making. A soap so made is

not the result of saponification but of a simple combination, as is the case also with resin soaps. All other soaps result from the combination of fatty oils and fats with potash or soda solutions under conditions which favour saponification. The soap solution which results from the combination forms soap-size and is a mixture of soap with water, the excess alkali, and the glycerin liberated from the oil. In such condition ordinary soft soaps and certain kinds of hard soap are brought to the market. In curd soaps, however, which form the basis of most household soap, the uncombined alkali and the glycerin are separated by "salting out," and the soap in this condition contains about 30 per cent. of water. Soap may be framed and finished in this state, but almost invariably it receives a further treatment called "refining" or "fitting," in which by smelting with water, with or without the subsequent addition of other agents to harden the finished product, the soap may be made to contain from 60 to 70 per cent. of water and yet present a firm hard texture.

Among the raw materials used by the soap-boiler the principal fatty bodies are tallow, lard, palm oil, palm-kernel oil, olive oil, cotton-seed oil, sesame oil, and cocoa-nut oil for hard soaps, and fish oils, linseed oil, marrow fat, and the lower qualities of other oils obtained by extraction, &c., for potash or soft soaps. Almond oil, spermaceti, cocoa-butter, ground-nut oil, and some others form the basis of certain toilet and medicinal soaps. Resin and colophony form essential ingredients in yellow soaps. The alkalis are used almost exclusively in the condition of caustic lyes,—solutions of their respective hydrates in water. Caustic soda is now obtained direct from the soda manufacturer, and one operation, causticizing the soda, is thus spared the soap-boiler. Potash lyes are, however, principally sharpened or causticized by the soap-boiler himself from potash carbonate, the process for which is described under POTASSIUM METALS (vol. xix. p. 539).

The process of soap-boiling is carried out in large iron boilers called "soap pans" or "coppers," some of which have capacity for a charge of 30 tons or more. The pan proper is surmounted by a great cone or hopper called a curb, to provide for the foaming up of the boiling mass and to prevent loss from overflowing. Formerly the pans were heated by open firing from below; but now the almost universal practice is to boil by steam injected from perforated pipes coiled within the pan, such injection favouring the uniform heating of the mass and causing an agitation favourable to the ultimate mixture and saponification of the materials. Direct firing is used for the second boiling of the soap mixture; but for this superheated steam may with advantage be substituted, either applied by a steam-jacket round the pan or by a closed coil of pipe within it. In large pans a mechanical stirring apparatus is provided, which in some cases, as in Morfit's steam "twirl," is formed of the steam-heating tubes geared to rotate. Closed cylinders in which the materials are boiled under pressure are also employed for certain soaps.

Curd Soap.—The oil mixture used differs in the several manufacturing countries, and the commercial name of the product is correspondingly varied. In Germany tallow is the principal fat; in France olive oil occupies the chief place and the product is known as Marseilles or Castile soap; and in England tallow and palm oil are largely used. But in all countries a mixture of several oils enters into the composition of curd soaps and the proportions used have no fixity. For each ton of soap to be made from 12 to 16 cwt. of oil is required. The soap pan is charged with the tallow or other fat, and open steam is turned on. So soon as the tallow is melted a quantity of weak lye is added, and the agitation of the injected steam causes the fat and lye to become intimately mixed and produces a milky emulsion. As the lye becomes absorbed, a condition indicated by the taste of the goods, additional quantities of lye of increasing strength are added. After some time, the contents of the pan begin to clear and become in the end very transparent. Lye still continues to be poured in till a sample tastes distinctly alkaline,—a test which indicates that the whole of the fatty acids have been taken up by and combined with the alkali. Then without further addition of alkali the boiling is continued for a few minutes, when the soap is ready for salting out or "graining." Either common salt or strong brine in measured quantity is added to the charge, and the soap being insoluble in such salt solution, a separation of constituents takes place: the soap collects on the surface in an open granular condition, and the spent lye sinks to the bottom after it has been left for a short time to settle. Supposing now that a pure soap without resin is to be made—a product little seen in the market—the spent lye is run off, steam is again turned on, pure water or very weak lye run in, and the contents boiled up till the whole is thin, clear, and clear. The soap is from this again grained off or salted out, and the underlye so thrown down carries with it coloured impurities which may have been in the materials or which arise from contact with the boiler. Such washing process may have to be repeated several times when impure materials have been used. The spent lye of the washing being drained off, the soap now receives its strengthening boil. Steam is turned on, and, the mass being brought to a clear condition with

weak lye or water, strong lye is added and the boiling continued with close steam till the lye attains such a state of concentration that the soap is no longer soluble in it, and it will separate from the caustic lye as from a common salt solution. The contents of the pan are once more allowed to cool and settle, and the soap as now formed constitutes a pure curd soap, carrying with it some proportion of uncombined alkali, but containing the minimum amount of water. It may be skimmed off the underlye and placed direct in the frames for solidification; but that is a practice scarcely at all followed, the addition of resin soap in the pan and the subsequent "crutching in" of silicate of soda and adulterant mixings being features common to the manufacture. The lye from the strengthening boil contains much alkali and is used in connexion with other boilings.

Mottled Soap.—A pure curd soap always carries with it into the cooling frame a considerable amount of coloured impurity, such as iron sulphate, &c. When it is permitted to cool rapidly the colouring matter remains uniformly disseminated throughout the mass; but when means are taken to cause the soap to cool and solidify slowly a segregation takes place: the stearate and palmitate form a semi-crystalline solid, while the oleate, solidifying more slowly, comes by itself into translucent veins, in which the greater part of the coloured matter is drawn. In this way mottled or marbled soap is formed, and such mottled appearance was formerly highly valued as an indication of freedom from excess of water or other adulteration, because in fitted soaps the impurities are either washed out or fall to the bottom of the mass in cooling. Now, however, the most perfect mottle can be produced by working colouring matter into the soap in the frame, and mottling is very far from being a certificate of excellence of quality.

Yellow Soap consists of a mixture of any hard fatty soap with a variable proportion—up to 40 per cent. or more—of resin soap. That substance by itself has a tenacious gluey consistence, and its intermixture in excess renders the resulting compound soft and greasy. The ordinary method of adding resin consists in stirring it in small fragments into the fatty soap in the stage of clear-boiling; but a better result is obtained by separately preparing a fatty soap and the resin soap, and combining the two in the pan after the underlye has been salted out and removed from the fatty soap. The compound then receives its strengthening boil, after which it is fitted by boiling with added water or weak lye, continuing the boil till by examination of a sample the proper consistency has been reached. On settling a dark-coloured "nigger" or underlye separates out, which, because it contains some soap and alkali, is saved for future use.

Marine Soap.—Cocoa-nut oil behaves as regards saponification quite differently from all other oils and fats in relation to the caustic alkalis. It does not form an emulsion with weak alkalis; these even under prolonged boiling have no influence on the fat. With strong alkaline solutions, on the other hand, it saponifies with the utmost readiness even without heat, and forms without the separation of any underlye a soap of stiff firm consistence notwithstanding the presence of a very large percentage of water. Such soap is not insoluble in a strong solution of salt; hence it forms a lather and can be used for washing with sea-water, from which peculiarity it derives its name "marine soap." Being thus soluble in salt water it cannot of course be salted out like common soaps; but if a very concentrated salt solution is used precipitation is effected, and a curd soap is separated so hard and refractory as to be practically useless. Cocoa-nut soap is usually prepared by the so-called cold method, in which the fat heated to 80° C. is treated with a calculated quantity of caustic soda solution of sp. gr. 1.350, the two constituents being stirred together till the setting and hardening of the combination prevents further agitation. The property that cocoa-nut soap possesses of absorbing large proportions of water, and yet presenting the appearance of a hard solid body, makes the material a favourite basis for highly sophisticated compounds, in which water, sulphate of soda, and other alkaline solutions, soluble silicates, fuller's earth, starch, &c., play an important and bulky part. Cocoa-nut soap is little prepared by itself; but it forms a principal ingredient in compound soaps meant to imitate curd and yellow soaps. Two principal methods of preparing such compound soaps are employed. In the first way the ordinary oil and the cocoa-nut oil are mixed and saponified together with such a measured quantity of alkaline solution as serves to produce a hard soap without any salting out or separation of underlye. According to the second plan, the ordinary oil is treated as for the preparation of a curd soap, and to this the cocoa-nut soap separately saponified is added in the pan and both are boiled together till they form a homogeneous soap.

Silicate Soaps.—A further means of enabling a soap to contain large proportions of water and yet present a firm consistence is found in the use of silicate of soda. The silicate in the form of a concentrated solution is crutched or stirred into the soap in a mechanical mixing machine after the completion of the saponification, and it appears to enter into a distinct chemical combination with the soap. While silicate soaps bear heavy watering, the

soluble silicate itself is a powerful detergent, and it possesses certain advantages when used with hard waters, so that, taking its cheapness into account, the question whether its introduction into soap is a fraud may be fairly discussed and much said in its defence.

Framing.—The frames into which hard soaps are ladled for cooling and solidification consist of rectangular boxes made of iron plates and bound and clamped together in a way that allows the sides to be removed when required. The solidification is a very gradual process, depending, of course, for its completion on the size of the block; but before cutting into bars it is essential that the whole should be set and hardened through and through, else the cut bars would not hold together. Many ingenious devices for forming bars have been produced; but generally a strong frame is used, across which steel wires are stretched at distances equal to the size of the bars to be made, the blocks being first cut into slabs and then into bars.

Soft Soap.—As already said, soft soaps are made with potash lyes, although in practice a small quantity of soda is also used to give the soap some consistence. There is no separation of underlyes in potash soap, consequently the product contains the whole constituents of the oils used, as the operation of salting out is quite impracticable owing to the double decomposition which results from the action of salt, producing thereby a hard principally soda soap with formation of chloride of potassium. Owing to this circumstance it is impossible to "fit" or in any way purify soft soap, and all impurities which go into the pan of necessity enter into the finished product. The making of soft soap, although thus a much less complex process than hard soap making, is one that demands much skill and experience for its success. From the conditions of the manufacture care must be taken to regulate the amount and strength of the alkali in proportion to the oil used, and the degree of concentration to which the boiling ought to be continued has to be determined with close observation.

Toilet Soaps, &c.—Soaps used in personal ablution in no way differ from the soaps previously alluded to, and may consist of any of the varieties. It is of consequence that they should, as far as possible, be free from excess of alkali and all other salts and foreign ingredients which may have an injurious effect on the skin. The manufacturer of toilet soap generally takes care to present his wares in convenient form and of agreeable appearance and smell; the more weighty duty of having them free from uncombined alkali is in many cases entirely overlooked. Transparent soaps are prepared by dissolving ordinary soap in strong alcohol and distilling off the greater portion of the alcohol till the residue comes to the condition of a thick transparent jelly. This, when cast into forms and allowed to harden and dry slowly, comes out as transparent soap. A class of transparent soap may also be made by the cold process, with the use of cocoa-nut oil, castor oil, and sugar. It generally contains a large amount of uncombined alkali, and that, with its unpleasant odour of cocoa-nut oil, makes it a most undesirable soap for personal use. Toilet soaps of common quality are perfumed by simple melting and stirring into the mass some cheap odorous body that is not affected by alkalis under the influence of heat. The finer soaps are perfumed by the cold method; the soap is shaved down to thin slices, and the essential oil kneaded into and mixed with it by special machinery, after which it is formed into cakes by pressure in suitable moulds.

Glycerin soap ordinarily consists of about equal parts of pure hard soap and glycerin (the latter valuable for its emollient properties). The soap is melted by heat, the glycerin is stirred in, and the mixture strained and poured into forms, in which it hardens but slowly into a transparent mass. With excess of glycerin a fluid soap is formed, soap being soluble in that body, and such fluid soap has only feeble lathering properties. Soap containing small proportions of glycerin, on the other hand, forms a very tenacious lather, and when soap bubbles of an enduring character are desired glycerin is added to the solution. Soaps are also prepared in which large proportions of fine sharp sand, or of powdered pumice, are incorporated, and these substances, by their abrading action, powerfully assist the detergent influence of the soap on hands much begrimed by manufacturing operations.¹

Medicated soaps contain certain substances which exercise a specific influence on the skin. A few medicated soaps are prepared for internal use, among which are croton soap and jalap soap, both gentler cathartics than the uncombined medicinal principles. Medicated soaps for external use are only employed in cases of skin ailments and as prophylactic washes. Among the principal varieties are those which contain carbolic acid, petroleum, borax, camphor, chlorine, iodine, mercurial salts, sulphur, and tannin. Arsenical soap is very much employed by taxidermists for the preservation of the skins of birds and mammals. It consists of a mixture of white arsenic, hard soap, and slaked lime, say 4 oz. of each, with 12 oz. of carbonate of potash, the whole being made into a stiff paste with water.

The following table indicates the average composition of several commercial soaps:—

¹ "Soap powders" and "soap extracts" are simply preparations of alkalis.

	Water.	Fatty Acid.	Soda.		Potash.	Soluble Silica.	Glycerin.	Other Salts.	Loss.
			Com- bined.	Free.					
Tallow soap	28.8	58.0	6.8	1.6	..	..	2.3	2.9
Marseilles soap, mottled	10.15	76.0	8.65	0.25	..	..	..	4.95
Palm-oil soap . . .	35.4	49.9	7.0	1.0	..	..	1.1	5.6
Yellow soap	22.23	62.95 ²	8.03	..	..	..	..	6.79
Cocoa-nut oil soap . .	58.74	32.82	4.26	1.50	..	..	2.26	0.42
Silicate soap	50.4	5.5	10.7	..	33.4	..	..	..
Soft soap	43.3	41.9	..	..	10.2	..	4.6	..

Soap Analysis.—Here it will be sufficient to mention a few tests which can be executed without special chemical knowledge. To determine the water in a soap—a most important question—a few thin slices are weighed and dried in a stove at 105°C. so long as loss of weight continues. The loss of weight is the measure of uncombined water in the sample. Added salts, such as alkaline silicates, sulphates, &c. and insoluble earthy admixtures are detected by boiling a sample with alcohol, in which only the soap proper dissolves. The residue is collected in a filter, washed with hot alcohol, and weighed. An excessive proportion of surplus alkali can be detected by dissolving the soap in hot water and adding a sufficiency of saturated solution of common salt to salt it out. The alkali remains in solution and can be determined by the amount of a standard acid solution it neutralizes.

Commerce.—Marseilles has long been recognized as the most important centre of the soap trade, a position that city originally achieved through its ready command of the supplies of olive oil. The city is still very favourably situated for obtaining supplies of oils both local and foreign, including sesame, ground nut, castor oil, &c. In England the soap trade did not exist till the 16th century. In the reign of Charles I. a monopoly of soap-making was farmed to a corporation of soap-boilers in London,—a proceeding which led to serious complications. From 1712 to 1853 an excise duty ranging from 1d. to 3d. was levied on soap made in the United Kingdom, and that heavy impost (equal when 3d. to more than 100 per cent.) greatly impeded the development of the industry. In 1793, when the excise duty was 2½d. on hard and 1½d. on soft soap, the revenue yielded was a little over £400,000; in 1815 it was almost £750,000; in 1835, when the duty was levied at 1½d. and 1d. respectively (and when a drawback was allowed for soap used in manufactures), the revenue was almost £1,000,000; and in 1852, the last year in which the duty was levied, it amounted to £1,126,046, with a drawback on exportation amounting to £271,000. What the manufacture has risen to since that time there is no accurate way of estimating. (W. D.—J. PA.)

SOAP BARK. A vegetable principle known as "saponin," and chemically analogous to the arabin of soluble gums and to mucilage, forms with water a lather, and is on that account available as a substitute for soap. Saponin is obtainable from soap nuts, the fruit of a tree, *Saponaia officinalis* and allied species; but its most important source is the Quillai bark of Chili yielded by a large tree, *Quillaja saponaria*. The inner bark of the tree, reduced to powder, is employed in Chili as a substitute for soap.

SOBLESKI, JOHN, king of Poland. See JOHN III., vol. xiii. p. 714, and POLAND, vol. xix. p. 295.

SOCAGE is a form of tenure. Bracton, Britton, and other old writers derived the word from the French *soc*, "a ploughshare." Modern etymologists, however, prefer to derive it from the Old English *soc*, "a franchise" or "privilege," or the land over which such franchise or privilege was exercised. Socage differs from knight service in being agricultural rather than military in its nature, and from frankalmoin in being based on temporal rather than spiritual services. It is either free or villein. Free socage *in capite* was abolished by 12 Car. II. c. 24. That form of free socage called common socage is the ordinary modern freehold tenure. Varieties of it are burgage, gavelkind, and petit serjeanty. Scutage, while it existed, was another variety. The only representative of villein socage is the comparatively rare tenure of ancient demesne confined to manors, described in Domesday Book as *terra regis*. Socage tenure is said to have formerly existed in Scotland. The descent of socage lands in Scotland seems to have been to all the sons equally, as was originally the case in England. (See BURGAGE, GAVELKIND, REAL ESTATE, SCUTAGE.)

² Including resin acids.

SOCIALISM

Origin of name.

THE word "socialism" is of comparatively recent origin, having been coined in England in 1835. In that year a society which received the grandiloquent name of the "Association of all Classes of all Nations" was founded under the auspices of Robert Owen; and the words "socialist" and "socialism" were first used during the discussions which arose in connexion with it. As Owen and his school had no esteem for the political reform of the time, and laid all emphasis on the necessity of social improvement and reconstruction, it is obvious how the name came to be recognized as suitable and distinctive. The term was borrowed from England by a distinguished French writer, Reybaud, in his well-known work the *Reformateurs modernes* (1839), in which he discussed the theories of Saint-Simon, Fourier, and Owen. Through Reybaud it soon gained wide currency on the Continent, and is now the accepted world-historic name for one of the most remarkable movements of the 19th century.

The name was thus first applied in England to Owen's theory of social reconstruction, and in France to those also of Saint-Simon and Fourier. The best usage has always connected it with the views of these men and the cognate opinions which have since appeared. The word, however, is used with a great variety of meaning not only in popular speech and by politicians but even by economists and learned critics of socialism. The general tendency is to regard as socialistic any interference with property undertaken by society on behalf of the poor, the limitation of the principle of *laissez-faire* in favour of the suffering classes, radical social reform which disturbs the present system of private property as regulated by free competition. It is probable enough that the word will be permanently used to express the tendency indicated in these phrases, as a general name for the strong reaction that has now set in against the overstrained individualism and one-sided freedom which date from the latter half of the 18th century. The application is neither precise nor accurate; but it is use and wont that determine the meaning of words, and this seems to be the tendency of use and wont.

Even economic writers differ greatly in the meaning they attach to the word. The great German economist Roscher defines it as including "those tendencies which demand a greater regard for the common weal than consists with human nature." Adolf Held says that "we may define as socialistic every tendency which demands the subordination of the individual will to the community." Janet more precisely defines it as follows:—"We call socialism every doctrine which teaches that the state has a right to correct the inequality of wealth which exists among men and to legally establish the balance by taking from those who have too much in order to give to those who have not enough, and that in a permanent manner, and not in such and such a particular case,—a famine, for instance, a public calamity, &c." Laveleye explains it thus: "In the first place every socialistic doctrine aims at introducing greater equality in social conditions, and in the second place at realizing those reforms by the law or the state." Von Scheel simply defines it as the "economic philosophy of the suffering classes." Of all these definitions it can only be said that they more or less faithfully reflect current opinion as to the nature of socialism. They are either too vague

¹ The aim of the present article is essentially to give a history and exposition of socialism in its leading phases and principles. The point of view is objective,—to explain what socialism has been and is. A controversial or critical article on the many vexed questions suggested by the subject would have been inconsistent with the plan of this work.

or they are misleading, and they quite fail to bring out the clear and strongly marked characteristics that distinguish the phenomena to which the name of socialism is properly applied. To say that socialism exacts a greater regard for the common weal than is compatible with human nature is to pass sentence on the movement, not to define it. In all ages of the world, and under all forms and tendencies of government and of social evolution, the will of the individual has been subordinated to the will of society, often unduly so. It is also most misleading to speak as if socialism must proceed from the state as we know it. The early socialism proceeded from private effort and experiment. A great deal of the most notorious socialism of the present day aims not only at subverting the existing state in every form but all the existing political and social institutions. The most powerful and most philosophic, that of Karl Marx, aimed at superseding the existing governments by a vast international combination of the workers of all nations, without distinction of creed, colour, or nationality.

Still more objectionable, however, is the tendency not unfrequently shown to identify socialism with a violent and lawless revolutionary spirit. As sometimes used, "socialism" means nothing more nor less than the most modern form of the revolutionary spirit with a suggestion of anarchy and dynamite. This is to confound the essence of the movement with an accidental feature more or less common to all great innovations. Every new thing of any moment, whether good or evil, has its revolutionary stage in which it disturbs and upsets the accepted beliefs and institutions. The Protestant Reformation was for more than a century and a half the occasion of national and international trouble and bloodshed. The suppression of American slavery could not be effected without a tremendous civil war. There was a time when the opinions comprehended under the name of "liberalism" had to fight to the death for toleration; and representative government was at one time a revolutionary innovation. The fact that a movement is revolutionary generally implies only that it is new, that it is disposed to exert itself by strong methods, and is calculated to make great changes. It is an unhappy feature of most great changes that they have been attended with the exercise of force, but that is because the powers in possession have generally attempted to suppress them by the exercise of force.

In point of fact socialism is one of the most elastic and protean phenomena of history, varying according to the time and circumstances in which it appears and with the character and opinions and institutions of the people who adopt it. Such a movement cannot be condemned or approved *en bloc*. Most of the current formulæ to which it has been referred for praise or censure are totally erroneous and misleading. Yet in the midst of the various theories that go by the name of "socialism" there is a kernel of principle that is common to them all. That principle is of an economic nature, and is most clear and precise. The central aim of socialism is to terminate the divorce of the workers from the natural sources of subsistence and of culture. The socialist theory is based on the historical assertion that the course of social evolution for centuries has gradually been to exclude the producing classes from the possession of land and capital and to establish a new subjection, the subjection of workers, who have nothing to depend on but precarious wage-labour. The socialists maintain that the present system (in which land and capital are the property of private individuals freely struggling for increase of wealth) leads inevitably to social and