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Regelation [Lat. *re-*, again + *gelatio*, a freezing, deriv. of *gela re*, freeze]: the freezing together, without the application of outward cold, of contiguous surfaces (of ice or of certain other solids at the melting-point) when subjected to pressure and then released.

This phenomenon, which was discovered by Faraday in 1850, is common to all substances which increase in volume upon freezing. It has been studied chiefly in the case of ice, a material in which the process is of particular interest on account of the part which it plays in the motion of glaciers.

Regelation depends upon a principle stated by James Thompson, viz., that any substance the volume of which is greater in the solid state at the melting-point than when liquefied at the same temperature will have its melting temperature lowered by pressure. The effect, even in the case of water, is very small, amounting to a reduction of 0.0075° per atmosphere. By means of it, however, Mouton in 1858 was able to prevent that liquid from freezing even at -18° C. The pressure necessary to the purpose was 13,000 atmospheres. This minute change in the melting-point is sufficient to enable regelation to take place.

The explanation of the phenomenon is as follows:

When two ice blocks in contact are subjected to pressure, a slight lowering of the melting-point occurs and a certain amount of ice is liquefied. To convert ice into the liquid form, even without rise of temperature, requires, however, a large amount of heat (heat of fusion = 79.9 calories per gramme). This is obtained at the expense of the temperature of the liquid and of the surrounding ice masses, which are thus brought below the normal melting-point. As soon as the pressure is removed, freezing takes place and the adjacent surfaces of the two blocks are united.

Under the conditions of an ordinary laboratory experiment the range of temperature changes is very minute, but when we come to consider glacial action, where immeasurably great pressures are brought to bear, we find in regelation an agency which, taken in connection with ordinary plasticity, is quite sufficient to account for the extraordinary motions of the ice. E. L. NICHOLS.

Regeneration [from Lat. *re-*, again + *generare*, beget]: a theological term used to express the initial stage of the change experienced by one who enters upon the Christian life. It is derived from the New Testament, where the "new-birth" (1 Pet. i. 3, 23; Titus iii. 5; John iii. 3 f.) is the beginning of that "renewal" which produces the "new creature." In the history of theology the term has been used with varying latitude of meaning. Among the Jews it was employed in an external sense to express the change of relation which took place when a heathen became a Jew; from them it was adopted in this sense by many of the Fathers, and is still so used by many advocates of "baptismal regeneration." It is used in the Latin Church to express the whole real change which corresponds to this external change of relation. The Reformers separated justification by itself as something wrought on, not in, the sinner, and employed regeneration to express the whole process of inner renovation in all its stages. In the development of Protestant theology the term has been still further narrowed: first, to express the opening stage of this subjective work as distinguished from its continuance in sanctification; and then, since the seventeenth century, to express the initial divine act in this opening stage itself, as distinguished from the broader term conversion, which includes, along with the act of God, revivifying man, also the act of man in turning to God.

The nature of regeneration is of course variously conceived by different schools, according to their various views of the nature of the soul and its relation to God, of original or habitual sin, and of divine grace.

1. *Pelagians*, in accordance with their view of freedom of sin, necessarily regard regeneration as a self-determined change in the general moral course of man's life, an act of the man himself, without any gracious assistance other than that involved in instruction and favorable providential conditions. This was the teaching of Pelagius in the early part of the fifth century; and although not adopted by an historical Church, it has been reproduced in various combinations by Rationalists and Socinians.

2. The *Semi-Pelagian* doctrine taught by John Cassian (d. 440) admits that divine grace (*assistentia*) is necessary to enable a sinner to return unto God and live, yet holds that, from the nature of the human will, man may first

spontaneously, of himself, desire and attempt to choose and obey God. They deny the necessity of *prevenient* but admit the necessity of *co-operative* grace and conceive regeneration as the product of this co-operative grace.

3. The *Medieval and Papal* doctrine, which is practically that of Thomas Aquinas, and is hence often called "Thomism," admits original sin and the necessity of *prevenient* grace, but places the efficacy of grace in the non-resistance of the subject. (See the *Council of Trent*, sess. 6, can. 4, chs. v. and vi., and sess. 7, cans. 6 and 8.) But this grace is supposed to be exercised only through the instrumentality of baptism, which acts as an *opus operatum*, *ex vi actionis ipsius*, effecting regeneration and the entire removal of sin, and consequently of guilt, from every infant, and from every adult who does not willfully resist (*non ponentibus obicem*). *Council of Trent*, sess. 7, can. 6; Bellarmin, *De Sacramentis*, 2, 1.

4. The *Arminian* view of regeneration admits total depravity and consequent moral impotency, yet holds that man is not really responsible until there is redemptively bestowed upon him for Christ's sake *sufficient* grace to render him with ability (gracious, substituted for natural) to do right, which grace becomes *efficient* when the sinner co-operates with it, and thus effects the end intended.

5. The *Synergistic* view was held by a party among the Lutherans, under the leadership of Melancthon. At the Leipzig Conference (1548) Melancthon said: "There concur three causes of a good action—the word of God, the Holy Spirit, and the human will assenting, not resisting the word of God." *Loc. Com.*, p. 90.

6. The *Lutheran* standard, the *Formula Concordiæ*, teaches that: (1) Human nature is spiritually dead; and (2) the Holy Ghost is the sole efficient agent who quickens the dead soul to life, without the least co-operation of the will of the subject; but the non-regeneration of the unbeliever is referred not to the absence nor to any deficiency of grace, but to the positive resistance of the man himself. *Formula Concordiæ*, pp. 662, 666, 582, 677.

7. The *Reformed* doctrine teaches as follows: (1) As to the *nature* of regeneration: (a) There are in the soul, besides its several faculties, habits or dispositions, innate or acquired, which lay the foundation for the soul's exercising its faculties in a particular way. (b) These dispositions (moral) are anterior to moral action, and determine its character as good or evil. (c) In creation God made the dispositions of Adam's heart holy. (d) In regeneration God recreates the governing dispositions of the regenerated man's heart holy. Regeneration is therefore essentially the communication of a new spiritual life, and is properly called a "new birth." (2) As to its *efficient cause*: It is effected by divine power acting supernaturally and immediately upon the soul, quickening it to spiritual life, and implanting gracious principles of action. (3) As to man's action: Conversion (*conversio actualis*) instantly follows, as the change of action consequent upon the change of character, and consists in repentance, faith, holy obedience, etc. *Thirty-nine Articles*, art. 10; *Can. of Synod of Dort*, ch. iii., art. 3; *Westminster Confession*, ch. x.

What is called *baptismal regeneration* is held by members of the Church of England and others in various senses. (1) Some hold that the Holy Spirit through the instrumentality of baptism implants a germ of spiritual life in the soul, which may long remain latent, and may be subsequently developed (in conversion) or blasted. (2) Others hold that there are two regenerations—one a change of *state* or *relation*, and the other a change of *nature*; the first is baptismal and the second moral, though both are spiritual, since both are wrought by the Holy Ghost. A. A. HODGE.

Revised by B. B. WARFIELD.

Regensburg: See RATISBON.

Regent-bird: a name given to one of the bower-birds (*Sericulus melinus*), in honor of the prince regent, afterward George IV., because the black and golden yellow plumage of the male represented his family colors. It is an inhabitant of New South Wales. F. A. L.

Reggio di Calabria, red jō-dee-kaā-laab-rē-ūā (anc. *Rhegium*, *Regium*): city of Italy; in the province of Reggio; on the Strait of Messina (see map of Italy, ref. 9-G). The ancient name, signifying *rending*, probably refers to some grand natural convulsion, and possibly to that which separated Sicily from the mainland in prehistoric times. Reggio was first colonized by Chalcidians, whom fugitive Messenians joined about 723 B. C. Toward the end of the