

that of British soldiers; but here, again, the Boer was in a country familiar to him, and its objects familiar, and he was mostly hidden, while the British soldier stood out in the open. Besides, many of the Boers possessed a good pair of binoculars, and having picked up their enemy with them, they could see him after with the unaided eye.

"The extent to which familiarity assists sights is scarcely appreciated, but is easily illustrated. We are all of us accustomed to see English as printed, and we catch, perhaps, three or four lines at a glance. Yet turn that printed page upside down, or turn your own writing upside down, and you can make out scarcely anything except a paper covered with indefinite marks. At a distance at which it is easily read in the ordinary position it will be impossible to read it reversed. The man whose sight is trained in a particular groove always sees more in that groove, and both savage and civilized men are trained in grooves. The civilized man sees what is hidden from the savage, and the town-dweller what is hidden from the shepherd, as well as the reverse."

AUTOMATIC TELEPHONES AND PUBLIC MORALS.

THE introduction of automatic telephone exchanges and the consequent abolition of the central-office operator will result, we are gravely told by *The Electrical Review* (October 19), in an improvement of the public morals. The irate citizen who can not get his connection will have to swear to himself, if he swears at any one, and this, according to *The Review*, is less shocking to the moral sense of the community than to swear at the much-abused "hello girl," who, we are told, is always doing her duty and never merits our censure. Says *The Review*, editorially:

"Most of the trouble incident to the operation of telephone exchanges is due to the carelessness of the public and their lack of cooperation with the exchange force to produce the best results. If one calls for a telephone connection in the average exchange and does not get it within a few seconds, his wrath is generally directed toward the exchange management, whereas the person called may have neglected to answer his call promptly and be really responsible for the delay. The neglect of this important matter—the prompt answering of telephone calls—fairly lies at the bottom of a great deal of the criticism which has been directed in the press and generally toward telephone exchange management.

"Of late years there has been considerable work in the direction of establishing automatic telephone exchanges, in which the functions of the operator are entirely suppressed, the public themselves being their own operators through the agency of certain automatic apparatus grouped at a central point. It will be very interesting in noting the extension of such systems to observe their effect upon the public mind and temper. With automatic apparatus each person perfects his own call and is certain of the moment at which the called subscriber's bell rings. The automatic exchange, being simply a collection of obedient and instantaneously acting machinery, enjoys the same immunity that is supposed to protect corporations who have 'neither souls to damn nor bodies to kick.' In such exchanges, therefore, delays in obtaining through connections will be promptly ascribed to their real causes.

"Seriously speaking, the automatic system, assuming that such a system can be made entirely satisfactory in the matter of giving through connections or indications of busy line, possesses certain very important advantages over any exchange in which there is the human element. For one thing, communications through it are absolutely private; in the second place its educational effect upon users of the telephone will doubtless greatly quicken and improve the service; and in the third place, the public morals will certainly be bettered by a system which brings home to every man his own mistake in getting the right connection. There has been far too much abuse heaped upon the telephone operator. It will be very interesting to see what will be said of telephone-operators which are partly mechanical and which are controlled by the subscribers themselves."

PRESERVATION OF WOOD IN THE TROPICS.

THE ordinary soft wood, such as is used for all ordinary building purposes in temperate climates, is of very limited value in the tropics, on account of its liability to destruction by insects and other pests. It is asserted by Louis Balmes, in *La Science pour Tous* (August 5), that processes for preserving soft wood by impregnating it with antiseptics will prove of the greatest consequence in the administration of tropical colonies. Says M. Balmes:

"Wood is the basis of all colonization; it furnishes the chief materials of life and of the arts. But woods in moist and warm regions are divided into hard and soft woods; that is to say, into woods that are utilizable with difficulty and woods that can be easily worked. . . . The soft woods, which may be called the practicable woods, which can be worked with common tools in the ordinary inexpensive way, are, in the colonies, the prey of ferments, insects, worms, and all the tiny parasites engendered by the climate.

"Nevertheless, as these soft woods are of rapid growth—so much so that we can have in six or seven years trees of proper size for use in building railroads and telegraph lines, for equipping mines, etc.—it is to the soft woods that we must turn for use in the colonies and in all vast abandoned regions. . . . The soft woods, which are valueless to-day, would be the only ones utilized in the colonies with complete antiseptic treatment such as I shall describe it. . . .

"The value of antiseptic treatment for wood has long since been demonstrated. Since the experiments of M. Dingler, we know that insects do not attack portions of wood treated with creosote, and from the trials of antiseptic wood on the colonial railroads we know that when treated with creosote or sulfate of copper it resists for several years the multiple agents of destruction, whether ferments, worms, or insects.

"Antiseptic wood, except the beech, treated by the processes of injection that are now known, is only protected in the sap-wood; the heart-wood, the part that resists the process, becomes rapidly the prey of parasites. The sap-wood is thus seen to last longer than the heart. The conclusion is simple: The heart-must be treated like the sap-wood; every portion must be preserved against albuminoid fermentation, and against destruction by insects, or worms, or ants, or any of those myriad creatures that desolate . . . all warm countries where wood is used for building. . . .

"There are already several processes of this kind known, and we know already that to dye woods in mass results have been reached which, whether economical or not, . . . are at least certain, so far as the complete penetration of the colored liquid into every part of the wood is concerned."

The writer asserts his belief that this treatment of wood will one day be carried on in the most remote districts by means of portable apparatus. The country that adopts it will, he believes, reap an instant and enduring reward. Hard wood is good only for fine cabinet work, while soft wood is the best for all ordinary purposes, provided it can be made sufficiently durable.—*Translation made for THE LITERARY DIGEST.*

A Carbonless Arc-Light.—"Electric arc-lights," says *L'Electricien* (Paris), "have the disadvantage that the carbons consume gradually, and must be replaced every three or four days by new ones." According to *La Gazette Industrielle* of Riga, a new carbonless arc lamp, recently invented, does away with this objection. This lamp consists of an exhausted glass globe in which, instead of carbons kept at the proper distance by a complicated regulator, are two L-shaped aluminum arms with platinum points, kept at the proper interval by simple clockwork. The new lamp casts no shadow, and is used up very slowly; the aluminum arms need replacing only about once a year. The inventor, who has already the necessary patents, proposes to utilize his lamp by giving it the horizontal position—for it is not necessary to keep it upright like the ordinary arc-lamp. It can thus be provided with reflectors and other arrangements for facilitating the illumination.—*Translation made for THE LITERARY DIGEST.*

THE RELIGIOUS WORLD.

HAS SPIRITUALISM HAD ITS DAY?

THE term Spiritualism stands in the public mind for the manifestations of so-called mediums and the beliefs founded upon these mysterious phenomena. It is not, however, in such a sense that the term is used by J. M. Peebles, M.D., in an article on "The Religious Message of Spiritualism" (*Mind*, November). There are, he thinks, but two dogmas extant touching the origin and destiny of the human soul. These are Materialism and Spiritualism; and he asks that Spiritualism and *spiritism* be not confounded, since the words are not synonyms and should not be used interchangeably. Of this distinction he says:

"Spiritualism, differentiated from spiritism, is demonstrative, constructive, and profoundly reverent. And spiritism, grotesque as it has often been, had its uses. Its astounding phenomena—from Peter's midnight release from prison to the Hydesville concussions and since—have arrested public attention. They have proved thunderbolts to an atheistic positivism. They have directed befogged materialists to the overbrooding uncaused Cause as the Source of life, consciousness, intelligence, and purpose. They have demonstrated to investigators the continuity of existence hereafter, thus proving to thousands that the so-called dead were the most alive. Unfortunately spiritists did not always sift, analyze, and carefully tabulate these phenomena—showing their relation to moral science, religion, philosophy, and the geography of the overarching and underlying spheres of existence. Some in their folly invited into their ill-ventilated rooms the demon-dwellers of the Tartarean regions. Others found bewitching mirth and amusement in the phenomena; some used them for hunting Captain Kidd's buried treasures; still others made them a menagerie for getting trivial and fun-provoking 'tests,' thus lowering those grand psychic phenomena to the plane of old Babylonian necromancy.

"On the other hand, Spiritualism—in perfect harmony with the inspired teachings of the New Testament, thoughtful, constructive, reverent, and enriched by such spiritual sustenances as inspiration, illumination, open vision, angel voices, and impressions from the Christ-heavens of love and wisdom—can not be stuffed into an evangelical creed or bound up in a gilt-edged prayer-book; nor is it bounded by the horizon of promiscuous phenomena, the genuineness of which is often questionable. But, as aforesaid, Spiritualism is rooted and grounded in God, the Infinite Spirit Presence—our Father and our Mother, too,' using the inspired words of Theodore Parker; and it constituted the foundation-stones of all the ancient religions. It proffered the key that unlocked the esoteric mysteries of antiquity. It was the mighty moral force that gave to the world its inspired teachers and immortal leaders. Buddhism was based upon Gautama's vision, synoptic Christianity upon a dream, and Mohammedanism upon the angel Gabriel's command to Mohammed while wrapped in his mantle in a desert place."

Having so distinguished the two terms, Dr. Peebles makes the statement that Spiritualism is the only religion that has a "message"—"the living message of immortality." He offers to prove his statements by a comparison with "orthodox" or "churchianic" religions, as follows:

"It is the *orthodox* religion that has no 'message'—no present messages from ministering angels or departed friends. Modern theology offers us a religion living, or struggling to live, on the echoes of old messages delivered to polygamy-practising patriarchs and Palestinian Jews. Twentieth-century thinkers can not feast on either Israel's manna or New-Testament history. God is alive. He speaks just as frequently and fatherly to us as He did to treacherous Jacob, or to David of doubtful morals. Noah's ark could not serve for our transoceanic travel.

"Without a vision," said the inspired prophet, 'the people perish.' But evangelical Christianity has no vision, no trance, no message from the loved in heaven; hence, Spiritualism is radically supplanting it. Christian churches must accept present spiritual phenomena or die. Confessions of faith are already

being 'revised.' The Athanasian creed is actually dead. Science and psychism, having buried its putrefying carcass, are now deodorizing its temples.

"Churchianic religion talks of a *dead* Jesus, of the *empty* tomb, of offerings to the Lord of 'goat's hair and ram's skin dyed red,' and of the 'atoning blood' that punishes the innocent in place of the guilty—salvation by substitution! The horn that yellowed in Kedron will not suffice for this century; neither will the leathern girdles nor wild locusts of any wilderness Baptist. Blessed be Spiritualism, with its presence of the living Christ, its ministering spirits, inspiring phenomena, constant baptisms, and messages that tell of abiding love and eternal soul unfoldment!"

Dr. Peebles mentions names of distinguished thinkers who were, when living, or are to-day, Spiritualists, and goes on to say:

"All cultured persons know that there are thousands of people—noted for their intelligence, conspicuous for their honesty, famous for their scientific attainments, noted for their good moral characters, scholarly standing, and profound erudition—who solemnly testify that on strictly scientific principles they have investigated and demonstrated the fact of a future progressive life through present spiritual phenomena. Their testimony is as direct and overwhelming as it is unimpeachable. . . . As to knowledge of 'a destiny,' all that the wisest know about it has come through the phenomena and philosophy of Spiritualism. Even the 'law' was received 'by the disposition of angels.' God is neither dumb nor dead. He speaks to all races through immutable law; speaks to the individual conscience from the silence; speaks through angels and his ministering spirits. Some of our intermediaries are intromitted into the spiritual world, whence, seeing things before which the far-famed valley of Cashmere would pale—things too transcendently beautiful to be described in human language—and hearing enchanting rhapsodies when Mozart and all the great masters played in unison, they reluctantly returned to their mortal tabernacles."

CAUSES OF THE SLOW GROWTH OF THE CHURCH.

MUCH has been written of late about the scant numerical increase of the churches during the last decade, and many reasons have been offered to explain this lack of growth. In the opinion of Rev. Samuel M. Smith, D.D., writing in *The Union Seminary Magazine* (October), the solution is influenced in each instance by the personal equation of the solver. He says:

"Writers of the 'broad' school are very unanimous and very earnest in attributing it to the narrowness of the conservatives, the repellent influence of dogmatic creeds, seemingly oblivious of the plain, prosaic fact that the churches nearest their ideal show the least progress of all—the Unitarians and the Universalists still competing for the lowest place.

"Some are clamorous in the assertion that heresy-hunting is the blight, and charge that 'persecution' of the progressives is simply killing the church.

"But here again the argument is confounded by another stubborn fact: The church charged with this crime has grown faster than the Methodist Episcopal Church, which has been innocent. If the chill in the ecclesiastical atmosphere that caused certain Presbyterian professors to seek a sunnier slope stunted the growth of God's garden, it would seem that the yet frostier air that congealed around the eminent Baptist professor ought to have left even a deadlier blight on that part of the Lord's plantation, whereas the figures show that the Southern Baptist Church has actually grown faster than either the Northern Presbyterian or the Northern Methodist!

"Many contrasts have been drawn between the peace reigning in the Episcopal Church and the war waging in the Presbyterian. But the artists in ink are evidently more familiar with the latter than with the former; to ears attent equally in both directions will be borne sounds from the Episcopal point of the compass not indicative of the profoundest peace, and if their church press be a reliable index of feeling, everything is not so harmonious as some Presbyterian recalcitrants would lead us to think."

Leaving the field of comparison, and addressing himself more