

# Religious Intelligencer.

THAT GOD IN ALL THINGS MAY BE GLORIFIED THROUGH JESUS CHRIST.—Peter

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## Renewals.

Several hundreds of subscriptions are now overdue. We are expecting that they will all be renewed, and hope the renewals will be as prompt as possible.

this month.  
Our friends can help us very much by renewing at once.

## NOTES AND COMMENTS

**A POOR EDITOR.**—A western paper tells that an evangelist of the practical sort, requested all in the congregation who paid their debts to rise. The rising was general. After they had taken their seats, a call was made for those who didn't pay their debts, and one solitary individual arose, who explained that he was an editor, and could not rise because the rest of the congregation were owing him their subscriptions.

**LAUGHTER.**—Somebody suggests that the time may come when the doctors will prescribe laughter. Indeed some of them do now try to get patients of a certain class to "laugh and grow fat." Perhaps there is not, says the *Scientific American*, the remotest corner or little inlet of the minute blood vessels of the body, that does not feel some wavelet from the great convulsions produced by hearty laughter shaking the central man. The blood moves more lively; probably its chemical, electric or vital conditions are distinctly modified. It conveys a different impression to all the organs of the body, as it visits them on that particular mystic journey, when the man is laughing, from what it does at other times. And thus it is that a good laugh lengthens a man's life by conveying a distinct and additional stimulus to the vital forces. The time may come when physicians, attending more closely than they do now to the innumerable subtle influences which the soul exerts upon its tenement of clay, shall prescribe to the torpid patient "so many peals of laughter to be undergone at such and such a time," just as they do that far more objectionable prescription—a bill, or an electric or galvanic shock.

**SOLDIERS ON SKATES.**—The most curious battalion in an army is, probably the Norwegian corps of skaters. They are all picked men, armed with rifles, which they use with great precision. The skates used are admirably adapted for travelling over rough and broken ice and through snow, being six inches broad and between nine and ten inches long. The soldiers can be manoeuvred upon ice or over the snow fields of the mountains with a rapidity equal to that of the best trained cavalry. As an instance of the speed they attain, it is stated that a messenger attached to the corps has accomplished 120 miles in 18½ hours over a mountainous country.

**TOO MANY SUCH.**—The *Indiana Advocate* says it knows church members who claim to be too poor to pay any thing to the church, or to give to missions, or to help the poor, but who can always get to the picnic, and never miss the oyster supper.

**PASTORLESS.**—The *Lowiston Journal* has been collecting statistics of the pastorless churches in the state of Maine. From facts gathered it appears that the Methodists have 279 churches with pastors and 38 without; the Baptists 121 with and 98 without; the Free Baptists, 159 with and 81 without; the Congregationalists, 156 with and 76 without; the Universalists, 35 with and 56 without; the Catholics, 48 with and 8 without; the Christians, 43, with and 12 without; the Episcopal, 19 with and 8 without; the Adventists, 15 with and 16 without; the union churches, 15 open and 17 closed; the Unitarian, 15 open and 3 closed; the Quaker, 8 open and 4 closed.

## The Great Rival of Coal.

The city of Pittsburg Penn. has long been known as the Birm-

ham of the new world, and it has been justly proud of the title. As a place for a comfortable home, however, it was formerly not to be thought of for a moment. Now, presto, all is changed. One utterly fails at first to appreciate the wonderful transformation that has taken place here during the last four or five years. The sky is no longer obscured by clouds of smoke and coal soot, and it is not now necessary to light the street lamps by two or three o'clock in the afternoon. From the heights of Mt. Washington on the western side of the Monongahela river I was able to obtain an excellent bird's-eye view yesterday of both Pittsburg and Allegheny City and of the hills beyond. The atmosphere was as clear as that of New York, and the large buildings were as distinctly visible as those on the lower part of Manhattan Island as seen from the *Tribune* tower. A few years ago nothing would have been discernible but a black and smoky cloud overhanging and folding in like a blanket the whole valley in which the business portion of the two cities is located.

This wonderful change is due wholly to the substitution of natural gas for the soft coal of this region, as a fuel, both for domestic and for manufacturing purposes. Through the courtesy of Messrs. Jones & Laughlin, the senior member of whose firm is chairman of the Republican National Committee, I have been able to make a very thorough inspection of their system of using natural gas in heating their large furnaces, boilers and, in fact, everything else where fire is needed. The works are among the largest here. A single three-inch gas pipe, the valve of which was only about one-eighth open, supplied the gas for a large heating furnace; in other words, only about one-eighth of the capacity of the pipe was required to furnish the necessary amount of heat. A perfectly steady temperature is maintained, and, by the proper care in regulating the amount of air admitted to the burning gas, very little heat escapes up the chimney. At the same time it is possible to put in a heavier charge and to bring it out in much less time than by the former method, the gain is the output of the furnaces being estimated at not less than fifteen per cent. At the puddling furnaces the feeding pipe is only two inches in diameter, and the valve controlling the flow of gas was only one-sixteenth open. The large boilers for producing steam used in running the machinery are forty-eight inches in diameter and thirty feet long, with six ten inch flues. A boiler of this kind is fed by a two inch gas-pipe, the valve in which was only about one-half open this morning. When the boilers become hot, and the flow of gas has been adjusted they require little further attention, the gas flow being steady and continuous. There is no opening nor shutting of doors, no blank spaces on the great bars for the entrance of cold air, no shovelling of coal nor carting away of ashes, and, in fact, nothing for the attendant to do but to keep an eye on the steam gauge and regulate the flow of gas as may be desired.

In addition to the heating furnaces referred to and the Siemens heaters used in the manufacture of steel, these works have ninety puddling furnaces and seventy-two boilers. The employees number nearly 5,000, and the production of the work for a recent month, taken at random to indicate the output, consisted of puddled iron, 5,900 tons; iron heated in ordinary and Siemens furnaces, 13,000 tons, and steel production, 7,300 tons. Of course all this metal was also reduced to bars, plates etc., the steam to run the heavy machinery being produced in the boilers mentioned. Before the introduction of gas the works consumed over 300,000 tons of coal yearly; the whole establishment is now fed by a single gas-pipe twenty inches in diameter, the pressure in which is only about one pound to the square inch. The pressure in the pipes, while subject to control, varies somewhat at different times, but never, of late greatly exceeds that mentioned, and the entire works have been run on a pressure of only three ounces to the square inch.

The wonderful heat-producing power of this gas is due chiefly to the fact that a very large percentage—in some cases nearly ninety per cent.—of it is hydrogen, the greater caloric qualities of which are well known. A given weight of hydrogen will produce in burning, three times as much heat as the same weight of carbon. The value of gas in an establishment of this kind, as compared with coal, is dependent in part, of course, upon the conditions under which the two fuels can be obtained. It is estimated, however, that there is an average saving by the use of gas of sixty to seventy-five per cent., of which nearly one-half is represented by the cost of the fuel and as much more by the cost of labor and materials. There are no ashes to be carted away, no railroad sidings and trestles for moving coal cars, no switching changes, no wear and tear of wagons, carts, etc., nor is there a small army of employees to take charge of these adjuncts to the burning of coal, while, at the same time, there is a very considerable increase in the product of the mills. Indeed, it is confidently asserted that the mills could not afford to use coal if it were delivered to them free of charge.

The remarkable purity of the gas is another important feature in its favor, and for this reason it is especially valuable in puddling furnaces, where the iron shows great readiness to mix with foreign substances contained in the fuel. Wherever the gas is used an unusually large quantity of air is required, as compared with manufactured gas, to insure perfect combustion, and there is no doubt but that great improvements in the construction of furnaces and other heating apparatus will be made as the facilities for preserving the gas are increased and the importance of not wasting it becomes more apparent.

Glass making is said to be Pittsburg's oldest industry, and the annual product of its glass factories is placed at \$10,000,000 in value. The natural gas is peculiarly well adapted for this work, and the glass produced is superior in every respect to that manufactured in the old way. Both window glass and plate glass are made of a quality equal to or better than those obtained from Europe; this is especially true of plate glass, and as a consequence, the demand exceeds the supply. Manufacturers attribute their success directly to the use of natural gas. Not only is the glass better, but it is more economically made than by the use of coal for fuel the saving it is claimed being equal to the cost of the gas.

In the use of gas for cooking and heating dwelling-houses the only modification of the old range and open grate, built for burning coal, consists in filling up the old fire boxes with broken stone, brick or other similar material. The gas is admitted at the bottom of the grate through an extension of the pipe which enters the house, and it distributes itself through the open stove work. The heat is intense. The convenience to housekeepers in starting and maintaining fires must be apparent.

The population of Pittsburg, including Allegheny City, is over 200,000. The number of houses is estimated at 50,000, in about one-half of which natural gas is the only fuel now used and the number is constantly increasing. One gas company alone added over 3,000 customers to its list last year. There is not a single manufacturing establishment of any importance which now uses coal or anything but natural gas for fuel. In fact, it is impossible for concerns using coal to compete successfully with those using gas. Conservative estimates made by experts give the amount of coal that is now being displaced in Pittsburg and Allegheny City alone by the use of natural gas at over 4,500,000 tons annually, and if account be taken of the surrounding district, the quantity is much larger.—*N. Y. Tribune.*

## Lent.

Lent is now over. But what is Lent? It is a period of 40 days, when according to some, you must not eat meat on any day except Sunday and you must not eat eggs except at certain times, and you are to keep clear of dripping and lard, and confine yourself to fish as much as you can. It is right to fast on proper occasions as an acknowledgment of our offences before God and our humiliation in His presence. God appointed no set fast days. The Jews by their "improvements" upon the law of God used to fast twice a week, but even they did not

arrange a Forty Days' Fast. The Disciples of our Lord were not commanded by him to fast, and they are not reputed in Scripture to have fasted when they could get a dinner; except Paul once. There is not in the New Testament even a hint of "Lent," or of any periodic fasting—Greeks, Mohammedans, Roman Catholics and others lay great stress on fasting at set times. The exercise may prove to some a means of grace. Yet we do think it will be hard to find a class of citizens made better physically or spiritually by the material, formal, ceremonial fastings of Lent. Neither Scripture nor reason gives any encouragement to the practice. Better leave the conscience free from all commandments of men. Fast when you see cause; and eat with a thankful heart when you are hungry. We hope the Presbyterian Church will under no circumstances countenance the laying on the consciences of her members any "commandments of men." Public worship is appropriate enough perhaps on "Good Friday" or "Easter Monday." There may be a local fitness in services on such occasions. All we claim is that conscience is perfectly free.—*Pres. Witness.*

## The Army "Swearing-In."

Some one having questioned the correctness of the statement, which has been going the round of the papers, that members of the Salvation Army were required to be sworn in, and that among other things they were sworn not to attend any other than Army meetings without permission of the officers in charge, the *Messenger and Visitor* publishes the rules which bear on the question. They are as follows:

"Before the name of any person is entered on the roll, his experience and conversation must give evidence."

Sect. 4. "That he is willing to obey the orders of his superior officers in all matters relating to the S. A."

"Before any person is entered as a soldier on the roll, he must consider and publicly assent to the following articles of war."

No. 2. "Believing solemnly that the S. A. has been created by God, and is sustained and directed by Him, and that its doctrines are such as I fully believe and endorse, I do hereby declare my full determination, by God's help, to be a true soldier of the army till I die."

No. 10. "I do hereby declare that I will always obey the lawful orders of my officers, and that I will carry out to the utmost of my power all the regulations of the army, and that I will not attend any meeting outside of my corps without having first obtained the consent of my captain or other officer in charge to do so."

At the close of these articles, two of which we have quoted above, the following directions are given:

"All soldiers must be sworn in publicly by the Divisional Officer, the officer in charge of the corps having previously, at the soldiers' roll call, read and explained the doctrines and articles of war," including those above quoted.

"The Divisional Officer must call to the front those who are to be enrolled, and read publicly the articles and the articles of war of the S. A. He shall then say:

"Having heard from us what are the doctrines of the S. A., and what is required of a Salvation soldier, if you are willing to be true to these teachings and rules—Fix bayonets! Fire a volley!"

"He shall then deliver the charge and swear in the soldiers under the colors, handing to each one a copy of these rules."

Our readers now have the published instructions of the Army before them, so far as they bear upon the statements made in our editorial. The swearing consists of a solemn affirmation, with the right hand raised toward heaven. Major Margetts also explains that the direct object of the pledge to refrain from attending other meetings than those of their corps is to secure the soldiers' faithful attendance at their own meetings, rather than to preclude their attendance elsewhere.

In the esteem of all true men a solemn affirmation, as described above, is as binding as an oath, and we have heard of instances where this solemn promise to abide in the army has troubled very much those who wished to leave Gen. Booth's organization for that of Christ. The pledge to obey the officers, and not

attend outside meetings unless by permission, gives officers a power few can be entrusted with without danger. With the hostile feeling cherished against the churches quite generally by the officers of the army, does not need conjecture to know how it will be used.

## The Country Choir.

It was a neat little church in a rural town, and filled with well-cultured people; but the choir was so far behind the times, really they did not seem to know what is expected of choirs in these days. There was a double quartette of them and all quietly in their seats, like the rest of the worshippers—why, they acted just as if they expected to join in the worship themselves, instead of faithfully doing their work like outside hirelings who had no interest in the concern. They were not whispering around and making general commotion to get things ready. They did not seem to feel their responsibilities. They were so countryfied that their music was all prepared, and their books, lying closed, before them. When the opening anthem had been completed, a word from the leader, to which all gave heed, then books closed and all was quiet again, and the choir making themselves a part of the worshipping people, gave attention to whatever was the order. They did not seem to know that was the time for general gossip, nor to realize how like unsophisticated children they appeared paying grave attention to what was going on in the other end of the church. How much more business-like it would have been for them to have had their heads in a huddle filling the room with whisperings, fixing up the next piece of music and agreeing how each should render his part. Innocents that they were they had arranged all that in advance, as the minister his sermon, so they could join in the worship—the goodie-goodies! And when the opening hymns were all out of the way, they were so uncultured as not to know that that was just the time for the morning paper, or the illustrated weekly for them to open and rustle and gossip and giggle over. Nor even did any of them get away into a corner with his novel, nor any two with a pocket chess-board. Not even the organist went out to a neighboring saloon to while the half-hour away, nor did the two lovers go and sit in the shade of the trees. They just sat there, entering into the service in all its parts, and giving so close attention, that when the minister said please omit the 2nd stanza, they did not fail to hear it, and go on singing the 2nd while the congregation sang the 3rd. It was a most astonishing that any parish, however rural should be so far behind the times.—*N. Y. Evangelist.*

## Plaint From The Congo.

Referring to the destructive traffic in intoxicants with the native races of Africa, the *New York Evangelist* says:

"The deputation from the Queen of Amantonga waited upon the Archbishop of Canterbury a few days since and described the harm inflicted upon the natives by the liquor-traffic. Mr. Grantham, the queen's adviser, who was one of the speakers, described the degradation into which his most intelligent race of Kaffies had fallen until the native queen had forbidden the sale of liquor by her own subjects. Fathers, he said, were constantly pledging their daughters on security for debts for liquor."

"The trade was now almost entirely in the hands of the Portuguese and the queen wanted to know whether the English like the Portuguese were desirous of destroying them with their poison. She feared such was the case, one of her Indunas having recently been killed by drinking spirits given him by an Englishman. The archbishop assured the deputation of the sympathy of all in England who had the welfare of the native races at heart with the efforts now being made by the Queen of Amantonga and her people to rid themselves of the dangers, moral, and physical, which threatened them through the unchecked liquor-traffic."

**LEAP YEAR.**—The leap year privilege is said to be six hundred and sixty years old, having been established in 1228 by an act of the Scottish Parliament, in these words: "During the reign of her blessed Majesty, Margaret, every maiden lady of both high and low degree shall have liberty to speak to the man she likes. If he refuses to take her to be his wife, he shall be mulct in the sum of one hundred pounds or less, as his estate may be, except and always if he can make it appear that he is betrothed to another woman, then he shall be free."

## How Dimes Are Made And Counted.

The United States mint at San Francisco is said to be the largest institution of the kind in the world. Just at the present time there is a lively demand for silver dimes, and two of the money presses have been for some time running exclusively on this coin. The demand is so great that these machines are not even stopped on Sunday. The process of dime making is an interesting one. The silver bullion is first melted and run through immense rollers and flattened out to the thickness of the coin. These silver strips are then passed through a machine which cuts them into proper size for the press, the strips first having been treated with a kind of tallow to prevent their being scratched in their passage through the cutters. The silver pieces are then put into the feeder of the printing presses, and are fed to the die by automatic machinery at the rate of 100 per minute, 48,000 dimes being turned out in a regular working day of eight hours. As the smooth pieces are pressed between the ponderous printing dies, they receive the lettered and figured impression in a manner similar to that of a paper pressed upon a form of type; at the same time the piece is expanded in a slight degree, and the small corrugations are cut into its rim. The machine drops the completed coin into the receiver, and it is ready for the counter's hands. The instrument used by the counter is not a complicated machine by any means, as one might suppose. It is a simple copper-colored tray, having raised ridges running across

its surface at a distance apart the exact width of a dime. From the receiver the money is dumped on the board or tray, and as it is shaken rapidly by the counter the pieces settle down into the spaces between the ridges. All these spaces being filled, the surplus coin is brushed back into the receiver, and the counter has exactly 1,250 silver dimes, or \$125 on his tray, which number is required to fill the spaces. The tray is then emptied into boxes and the money is ready for shipment. The dime does not pass through the weigher's hands as does the coin of higher denomination. One and one-half grains is allowed for variation or "tolerance" in all silver coins from a dollar down, and the deviation from the standard in the case of ten-cent pieces is so trifling that the trouble and expense of weighing coins of this denomination are dispensed with.

## Among Exchanges.

Do.

"Can't you join the 'Do' Society. You have belonged to the 'I Wish,' 'I Expect,' or 'I Hope to,' or 'Like to,' brigade long enough. It is a great blessing to belong to the 'Do-Some-things.' Look out for spells of running well for a while," and then a season of good-for-nothingness. Keep even and on.—*Highway.*

## A FLAGRANT SIN.

The reckless handling of reputation is one of the flagrant sins of our times. It is worse to break down a man's reputation than to burn his house. One of the most damnable things of which any human being can be guilty is that of unrighteously blackening the good name of another.—*Michigan Advocate.*

## SWEET HOME.

A visitor to a jail was greatly affected on hearing one of the prisoners humming to himself the air of "Home Sweet Home;" but his sympathy was chilled when he was told that the man had been imprisoned for cruelly beating his wife.—*N. Y. Ledger.*