# THE ONLY CRYOLITE MINE.

*IN A MOUNTAIN SIDE AT THE SOUTH END OF GREENLAND.*

**The Chemical Properties of a Mineral that Has Not Been Found in Workable Deposits Elsewhere—Its Uses in Manufactures and Its Value—Quarrying at Ivigtut—Some Queer Letters for Santa Claus.**

PART III.

The deposit of cryolite at Ivigtut is unique. There is no other mine or quarry like it in the world. Very small quantities of cryolite have been found at Miask, in the Ural Mountains, and a trace was found at Pike's Peak, in the United States. A man who reported the Pike's Peak deposit to an interested capitalist in the East was offered $150 for a ton of it, but the delivery could not be made. As a workable deposit the Ivigtut pocket stands alone. A good deposit of cryolite anywhere within reach is worth as much as a gold mine. Pure cryolite,

CRYOLITE ON THE WHARF.

to the ordinary observer, is a white stone. It is a good deal like white quartz and a good deal like ice that has a mixture of snow in it. Eskimos call cryolite the ice-that-never-melts, while the name cryolite is from Greek words meaning ice-stone. If any one should happen to find a deposit of white rock anywhere and imagine that it was cryolite, a piece of the rock should be soaked in clean water. If it then has the appearance of wet, opaque ice, the next thing to do is to try to cut it with a knife. If it cannot be cut it is probably quartz. If it can be shaved down into a powder very easily it may be cryolite, and samples should be sent to an expert. But not all cryolite is white. Some of it is light brown and some very dark. This is usually due to vegetable matter that has soaked into it, or it may be due to iron. If a piece of the dark stuff be heated very hot—say by putting it on top of a hot stove—it will whiten, the vegetable matter being driven off. Another way to determine the character of a supposed piece of cryolite is to analyze it. If the rock be fluoride of sodium and aluminium it is cryolite. That is, it consists of three chemical equivalents of sodium, two of aluminium, and six of fluorine. It has a hardness of 2.5, a specific gravity of 3, and it cleaves in three directions.

In 1806 a German named Giesecke, thinking that valuable minerals might be found in Greenland, applied to the Danish Government for permission to go there and prospect the mountains. He searched the coast from Cape Farewell up, living with the Danish Governors or the Eskimos, as circumstances dictated, until he reached Arsuk Fiord. Here he fell in with an intelligent Eskimo who had been taken to Denmark, educated, placed in Government employ, and finally discharged and sent back to Greenland for disrespect to his superiors. That man told Giesecke about a deposit of ice that never melted on the edge of Arsuk Fiord. It was powdered and used by the natives in tanning skins. It acted on a greasy hide as soap would act. Giesecke went to see the deposit. It cropped out on the south side of the fiord at the water's edge. The prospector gathered abundant samples, for it was an entirely new substance. The next year, with his new-found rock and a lot of other specimens from Greenland mountains, he sailed for home. Unfortunately for him Denmark was then opposed to England in the war that was stirring up the world, and the Danish ship was captured by a British man-of-war, carried to London, and sold as a good prize. The cryolite went to a British institution, where it was analyzed and its constituents were determined. It received a name which, for many years, students of chemistry committed to memory, and then forgot because it was not of any other value in the world than as a curious compound of certain elements. Then a distinguished chemist named Thomson discovered that a substance very useful to mankind—sal soda, also bicarbonate of soda—could be made cheaply from cryolite, and not only were these substances very cheap, but they were free from all impurities. That discovery led to attempts to work the deposit. As early as 1859 a little work was done in the quarry, but regular work was not begun until 1860. No money was made out of the quarry until 1864. Indeed, although steadily worked since 1860, previous to the year 1864 some hundreds of thousands of dollars were sunk in attempts to develop the cryolite industry.

Until 1864 the entire product of the mine went to Europe. Then an American firm, the Pennsylvania Salt Manufacturing Company of Natrona and Philadelphia, Pa., of which Mr. Theo. Armstrong is President, began to import it. This company was originally organized to make soda ash from the salt obtained from salt-water wells at Natrona, twenty-four miles from Pittsburgh. It is said that owing to competition with other concerns which had more cheaply worked deposits of salt, the profits had been reduced to an unsatisfactory limit, when at about the date mentioned the scientific directors of the company began to consider the advisability of importing cryolite. One of their directors thereupon was sent to Denmark, where he had abundant opportunity to examine and test the kryolith, as it is there called. The tests proved so satisfactory that a contract was made by which the Pennsylvania company was to have some thousands of tons per annum, and in any event two-thirds of all the product of the mine. The contract was for twenty years, with the option of extension. The option was taken at the end of the first period.

The difficulty was to get the cryolite from Ivigtut to Natrona. When a representative of the company called on a Philadelphia ship broker to see about chartering vessels for the purpose, the broker thought some of his fun-loving associates had sent the man to him as a joke. When convinced that vessels were really wanted to go to Greenland, he advised the company to apply to St. Johns (N. F.) whaling shipowner, and for a year or two whalers, chiefly from Scotland, were employed. Capt. Adam Smith made his first voyage to Ivigtut on one of these vessels. He has completed thirty-two voyages to the Greenland seas. In 1866 several American and Nova Scotian vessels were chartered for the trade, but after a few years' trial the American vessels abandoned the trade, and it was again transferred to the Danish and Scotch ships. The trade had many reverses, as the vessels were old, and neither the Danish nor Scotch shipowners were disposed to infuse new blood into it in the way of building suitable vessels for such navigation.

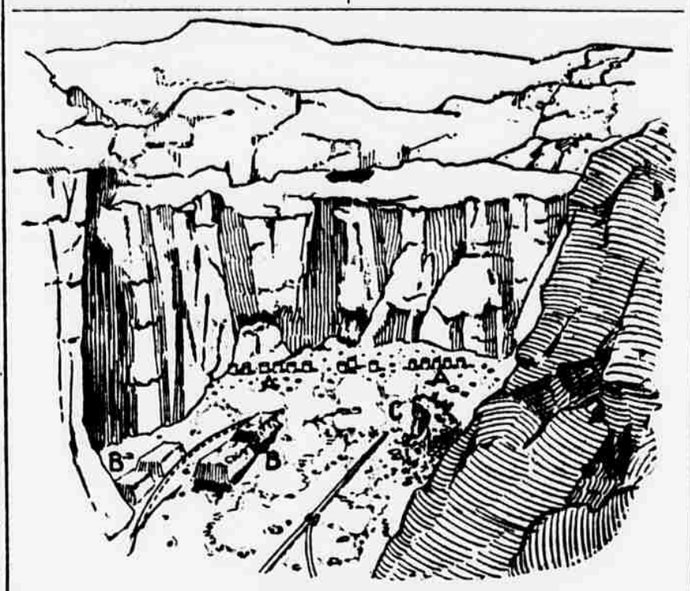
In 1876 Capt. C. B. Dix became the partner of Capt. L. McKay. Having had considerable experience in the Greenland trade, they were desirous of trying their fortunes again in that icy land. They knew what kind of vessels were needed. They accordingly proposed to the Pennsylvania Salt Manufacturing Company to build as fast as possible suitable vessels that would carry all the cryolite obtainable. Their proposition being accepted, the barks Ivigtut and Natrona, the first of the present fleet, were constructed. Every care was bestowed in the building and equipping of the vessels, also in the selection of suitable Captains to command them. Capt. Adam Smith, now of the Argenta, was one of the first employed. During thirteen years' experience McKay & Dix have built twelve vessels, all of which, except the two previously mentioned, have chemical names, viz., Kryolith, Alumina, Fluorine, Silica, Iodine, Sodium, Salina, Silicon, Platina, and Argenta; hence they are called the chemical fleet. Under the management of this firm the annual importations are from 8,000 to 10,000 tons. The first cargoes were delivered at Quebec and taken through by river and lake to Cleveland, Ohio, and thence by rail to the works at Natrona. That roundabout course was soon abandoned, however, for the direct voyage to Philadelphia, and thence by rail to Natrona. Frequently the ships are nipped in the ice off the Greenland coast, and are so badly damaged that they must return home for repairs.

THE MINE.

When work was first begun on the deposit it cropped out as a wide seam a few feet from the water of the fiord at high tide. An exploration showed, however, that the deposit was a pocket rather than a vein. The joy of the south shore is east and west. From the water's edge the deposit plunged down to the southward under the mountain at an angle of about 45 degrees. The rock above, in fact, all around it, is granite. When the deposit had been uncovered it was found to be more than 400 feet long by nearly 200 feet wide. To this day the owners do not know how deep it is, but they have dug it out to a depth of 100 feet and have drilled 140 feet farther, and found cryolite all the way. At the surface the cryolite was as pure and white as the snow. Huge blocks, without a speck or spot of impurity, were blasted out and placed on board the ships. As they worked down the miners found crystals of iron ore. The chunks of cryolite thus defiled were promptly dumped into the fiord along with the covering rock. The iron ore is a perfectly pure carbonate of iron, and could be used in the Bessemer process of making steel if in sufficient quantities. In addition to the carbonate of iron were sulphurets of iron and copper, beautiful specimens of lead ore, and several other interesting minerals that are found only in connection with cryolite and, until recently, entirely unknown. Among these are pachnolite, chiolite (named after Prof. J. Thomsen, who originated the cryolite industry), arksudite, geoarksudite, and hagemanite, which was named by Prof. Silliman after Mr. Gustav A. Hageman, the assistant chemist of the Pennsylvania Salt Manufacturing Company, who first analyzed it. But these impurities are readily separated from the cryolite in the process of manufacture, as they suffer no change under the chemical treatment by which the cryolite is decomposed.

The deposit, as a whole, may be readily pictured if the reader ever looked at a mountain spring where the water, boiling up through a hole in the bottom, kept lifting the sand there and holding it in suspension so that the water was discolored at the bottom but pure and limpid at the top. When this deposit of cryolite was found it boiled up in liquid form from a hole below, bringing with it iron and lead as the water in the spring brings sand. Then it solidified. Because the iron and lead were of specific gravity they remained near the bottom. Such is the cryolite deposit of Ivigtut.

The mine is only a hole in the ground, elliptic in shape and, say, 450 feet long by 150 wide. It lies parallel with the water. The wall of the hole on the water side is about vertical, while on the south side it is vertical also, except that wide pockets between huge pillars have been dug in under the overlying granite to follow the lead of the cryolite. The overlying rock on that side is about forty feet thick. On the water side is an inclined railway, where loaded cars are hauled up as empty ones come down, just as is done in coal mines. A pump shaft on this side extends twenty-eight feet down from the bottom of the mine, and all water drains into that. The pumps and engines are



THE CRYOLITE MINE.
A—Splitting blocks. B—Piles of pure cryolite. C—Refuse.

good, but not novel. While we were there one gang of men was blasting up the bottom of the quarry and another was at work cutting down a terrace at the western end. The drilling of the holes for blasting was by hand. The blasts are discharged while the men are away at meals. The pieces of mixed ore and cryolite are placed on blocks of wood, and are broken apart by hand, the cryolite going into one pile and the other ores into another. The refuse has been used for constructing the wharf.

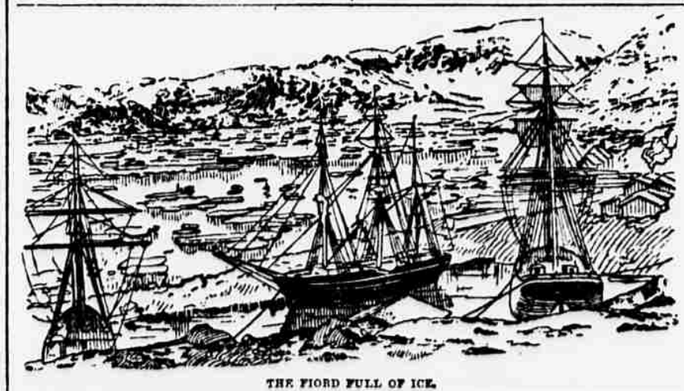
In summer the men work at the bottom of the hole. In winter they work on a novel staging that is readily made there. The water of the fiord is let into the mine, and when it has frozen over the men work on it to clear off surface rock and to cut down benches or terraces for the next season's work.

At the end of April, when the Fox, with a complement of men for the summer, is expected, the mine is pumped out and the ice is broken up and hauled away. It takes twenty days and nights to pump out the mine.

ON THE WHARF.

The wharf is about 500 feet long and 100 wide. It is simply a dump heap of refuse from the mine, but it has been floored over with heavy plank and supplied at the water side with substantial spiles and bedded anchors for mooring the ships. Three ships can load at once. They are moored about thirty-five feet from the edge, with which they are connected by heavy gang planks.

The name of the Danish company working the mine is the Kryolite Mining and Trading Company. It pays a royalty of one-fifth to the Danish Government. The most careful account is, therefore, kept of every ton mined. From the mine the cars are run by hand to the wharf, where small pieces of iron ore bolted on the floor locate the corners of the piles which must be built. The piles are of various sizes,



THE FIORD FULL OF ICE.

but they average about 25x100 feet and 4½ feet high. The men who make the piles use as much care as they would if building cellar walls for country houses. Lines are stretched between the iron-marked corners and then walls of big blocks of cryolite are built to those lines, the blocks being squared by the use of the hammer so that the wall is solid. As the wall is built up the space within is filled. Only pure white, or No. 1, cryolite is used in building the wall, and when the pile is of the required height lumps of pure white cryolite are thrown on top and broken up until the top is covered and slightly rounded. These piles are carefully measured, the unit of measure being a cubic fathom. It is Comptroller Müller's duty to keep the record of these piles and the shipments. A representative of the Kryolite Company records the weighing at Philadelphia.

LOADING CRYOLITE.

The Argenta was moored at the wharf on Thursday, Sept. 25. By noon next day she had the first wheelbarrow load of cryolite on board. But the cryolite, being about as heavy as limestone, cannot be dumped down in the bottom of a ship and left there. The Argenta had a platform built across and fore and aft about four feet above the floor to raise the centre of gravity of the load. If the centre of gravity of a load is too low in a ship she will roll violently, and endanger at least her spars and not unfrequently the hull.

On Saturday afternoon the Fluorine, Capt. Johnsen, arrived from Philadelphia. The Sodium, Capt. Anderson, arrived on Sunday afternoon, and thereafter the port of Ivigtut presented a scene of animation. With the aid of the Fox's crew and some shore help we got 410 tons of cryolite on board by Tuesday night, the end of the fifth day, and on Wednesday morning hauled the ship out until she was in ten fathoms of water, where the ballast was dumped overboard. Then she was hauled back, and the loading went on as before.

That only ships built in the strongest manner possible could stand this trade is shown by the fact that the Silicon, another of the fleet here in July, was obliged to go home in ballast, having been on a rock near the mouth of the fiord, and started a leak. The Sodium came into port leaking several inches of water an hour. She took on less than a full load, and was ready to sail when we sailed; but her Captain had a strong presentiment of evil to come, and he remained in Kajartolik harbor at the mouth of the fiord when the Argenta and the Fluorine sailed. She has since delivered her cargo at Rnita.

USES OF CRYOLITE.

By certain processes cryolite, the fluoride of sodium and aluminum is converted into sal soda or carbonate of soda, into bicarbonate of soda, into alum, and into caustic soda. To chemists the processes are said to be extremely interesting because they are simple and because the products are absolutely pure, the alum from cryolite being unique in this respect. Cryolite has further been used in the manufacture of opaque glass. Mixed with sand and oxide of zinc, a glass that very closely resembles porcelain and is yet almost as tough as iron is produced. A company has been organized to produce the metal aluminum from cryolite. Experiments have been so successful that a large factory is in operation in Pittsburgh, and several are contemplated in other cities for turning out that wonderful metal at a price less than $1 a pound. The product is on the market, and in two or three years will probably sell for less than 50 cents a pound.

The importing and handling of cryolite and its products give employment to nearly 2,000 men, who earn close to a million dollars a year. Several millions of capital are employed, and few enterprises have been supported so lavishly as the Pennsylvania Salt Manufacturing Company has been supported in the development of the cryolite industry. It required a deal of money, as well as skill and patience.

THE CLIMATE.

Ivigtut is in latitude 61° 12' north. It is about the latitude of the palace of the Czar of Russia in St. Petersburg. It is not so far north as localities where very many Swedes and Norwegians live, not to mention the other whites of northern Europe. When we were in Ivigtut it was light enough to work about decks at 6 o'clock in the morning, and the last barrow of cryolite was dumped into the Argenta's hold at 7 o'clock at night. We arrived with the first snow of the season. It was a light snow, that melted as it struck the deck, but it whitened the upper part of the mountains, say down to within 500 feet of the water. This snow remained and was increased by two or three other snow storms, but the Danes said that it would surely leave even the mountain tops on the arrival of the first southeaster, and that southeasters, with their warm rains, always cleared the snow from the mountains until along in December. There was no snow on the ground at the water's edge when we sailed away, but there was some three or four hundred feet up. All the fresh water ponds and lakes were frozen over by a cold snap before we left to a depth of perhaps three inches at the most. The air by day, except on the rainy days, is best described by the word bracing, but on even the warmest days when the sun had gone behind the westerly mountains the air became piercing cold. But the feeling was much colder than the thermometer indicated. With the Fahrenheit thermometer at from 15 to 20 degrees everybody about the ship who had them wore three flannel shirts. With less clothing on I have been more comfortable in the Adirondacks when the same thermometer was 15 or 20 degrees below zero.

The fiord, which at Ivigtut is 2½ miles wide, is usually frozen over early in November, but last winter it was not frozen. The ice is usually out of the fiord by May 1, but near the upper end of the fiord the water is very nearly fresh, owing to the stream that flows out from under the glaciers there. Willows are always in full leaf the first week in June.

When Dr. A. Hagerup was physician at Ivigtut he kept a meteorological record. He found, according to data left behind, an average temperature of a little lower than 5 degrees centigrade during the three coldest months of the year, while from the middle of June to the middle of September the average was about 7 centigrade. During one winter (1886-7) the lowest degree reached was 28, and the highest during the next summer, 21. The last year he was there a total of 31½ inches of rainfall was noted, but that is said to have been a rather dry year. The past summer there was more rain than during any season for several years. Very few bright days, not over a dozen which were bright all day, were noted until the frosts of September came.

It is said that at Julianshaab, near Cape Farewell, is a family that has owned a herd of cattle for more than 100 years, and that both butter and cheese of an exceptionally fine quality are produced. The cattle are small in size, but apparently healthy. They have diminished in size during the recollection of living people, and this diminution is said to be due to the climate. Abundant hay is raised for their keeping. The fiord and the ponds produce mosquitoes with appetites of the most vigorous nature.

One of the features of Ivigtut likely to attract the attention of the stranger is the truck raising. Some dozen or four gardens have been formed by clearing away the rocks, the largest being about 30x50 feet in size. With the aid of window sashes very fine crops of Scotch kale are matured.

THE MYSTERY OF THE FIELD ICE.

Local causes, rather than the latitude, make south Greenland unfit for agriculture. Along the shores of the Arsuk fiord there is very little soil to cultivate except in one or two valleys like the one just above Ivigtut. The soil is black and rich, but the obstacle in the way of cultivating that soil successfully is the current that brings field ice from the east coast of the country down around Cape Farewell and up along the west coast. The movements of this ice are mysterious. In general it is known that the field ice goes with the current, or, when the wind is the stronger, with the wind. But that does not account for all the movements. A current like a wide river sweeps up the coast with a pack of ice a hundred miles long on its bosom. As it passes the fiord on a calm day the ice, or large quantities of it, will suddenly take a set into the fiord. Thus at 9 o'clock it has been noticed that not a cake of ice was in sight at Ivigtut. At noon the fiord was full of ice. At 4 o'clock not a cake was in sight. On other days, apparently precisely like that day, a single cake may float off Ivigtut all day long, and perhaps stay there three days. On other days of like character no ice is seen, although there may be plenty of it off the mouth of the fiord. The tide very likely has something to do with the movement of the ice, but the ice sometimes comes in against the ebb tide and goes out against the flood. The reader who has broken at deep pools below a waterfall has no doubt edly seen bodies of the waters boil up as if from a spring in the pool; not a violent ebullition but a gradual rising of a large volume of water to the surface. This rising of the water would scatter floating debris in all directions. There is something about the movements of the ice off the coast of Greenland to suggest just such upheavals of water from the depths below.

Of the meteorological phenomena of this part of Greenland, nothing, probably, is more interesting than the easterly gales that rage along the coast. Because of the extraordinary force with which the wind courses down the mountain sides and out of the gorges and valleys, the utmost care has to be taken in mooring the ships indeed, a ship was once known to break a good chain cable by which she was moored at the bow and go drifting off with the gale. But not only is the gale interesting because of its extraordinary power; it is peculiar in its phases as it rises. One night the overcast sky began to clear in the east and then to whiten as if the moon were rising. A little later the cabin door opened without apparent cause, and a chilliness, followed by a warm breath, pervaded the room. The Captain shook his head, but said nothing, although he thought, as he said afterward, that the door had opened for an unwelcome guest. Half an hour passed before the guest appeared again, and then its presence was manifested simply by a sigh in the rigging. A full hour passed, and then it came again, a gentle breath that sighed through the rigging, a breeze that made the wires sing, a squall that whizzed around us, and then the gale, roaring and screaming upon us and across the fiord, rolling the cryolite across the deck, tearing the planks from the staging, and beating against the ship until she groaned and trembled. But the Captain said it was only half of what is sometimes felt.

But when we lay in Kajartalik harbor waiting for the ice to clear away from the mouth of the fiord, that we might sail for home, we saw the gale in all its glory. It was on Sunday, Oct. 12. The lofty peaks of Kungnat were behind us, away across the fiord toward those of Storo and Skeverut. Snow had fallen during the night, but early in the morning the sun came out bright and clear, while the gale intensified until its power was terrific. Leaping from crest to crest and bounding from side to side of Kungnat, the wind whirled in tornadoes down upon the water, tearing it into spinning columns of spray. Unchecked, the gale left the water and swept up the valleys and the gorges and the precipitous sides of the mountains, gathering the loose, dry snow in its embrace as it went, carrying it up and up to the very crests, and there hurling it away in spouting streams and fleecy clouds, that spurted and soared more than a thousand feet above the loftiest peaks, more than four thousand feet above the level of the sea, to fade and vanish slowly out of sight.

Woe betide the ship caught in the open fiord by one of these gales! There is no weathering its fury without serious damage, while fatal results are avoided only by extreme vigilance and a prompt squaring of the yards, that she may be driven out to sea. Capt. Smith of the Argenta was once driven out of the fiord, and he was able to bring his vessel to her course four degrees of latitude away from Ivigtut.

The perils and discomforts of the voyage, balanced against the pleasures, may be endured willingly, and among the latter not the least is the pleasure of looking at the effects of an easterly gale from a safe harbor near the mouth of the fiord. Another great pleasure is in the spectacle afforded nightly by the aurora borealis. If there be any manifestation of the powers of nature that will convey a conception of the dawn of the day which shall come like a thief in the night, in which the heavens shall pass away and the earth and the works that are therein shall be burned up, that manifestation will be found in the electrical flames that cover the skies of Greenland at night.

LETTERS TO SANTA CLAUS.

One of the most interesting experiences of the whole journey was the reading of two letters which had been written in the United States and had been forwarded northward on their way to "Mr. Santa Claus, Greenland." Every youngster in America believes that the honor of the jolly dispenser of Christmas comforts is among the icy mountains of Greenland, and that once a year he leaves the snow and ice of his home to drive a swift team of reindeer over hill and valley and lake and stream, stop at every house, climb down the chimney, and fill every stocking hanging near it with no end of nice things for little folks; but not very many of these youngsters ever tried to write to their generous old friend, and, of those who have tried, only two have succeeded in getting their letters as far on the way to the home of Santa Claus as the coast of Greenland. These two letters were in the possession of Mr. Schmidt, the Superintendent of the mine, and if he kept them instead of sending them on their way to the home of Santa Claus it was because no man has ever yet been able to get far enough in among the ice mountains to discover just where Santa Claus lives. The letters were brought to Ivigtut by the Fox when she arrived in April last, with the first of the season's supplies and the summer complement of men.

One of the letters had been written, as the marks on the envelope indicated, in Zanesville, Ohio, and received at the Zanesville Post Office at 6 o'clock on the afternoon of Feb. 12, 1890. It was directed to

MR. SANTA CLAUS,
Ice Mountains,
Greenland.

The writing on the envelope was neat and small, apparently that of a woman or a girl. It had a two-cent stamp. From Zanesville the letter was sent to New York, but either in Zanesville or New York some one wrote on the envelope with red ink: "Try Ice Mts., Greenland." From New York the letter was forwarded to Copenhagen, where it was received on March 6, and then, after having been marked in Danish ink and pencil, sent to the office of the company that owns the mine at Ivigtut. Mr. Schmidt found in the envelope a small piece of white paper of the kind used for daily newspapers. It was covered on both sides with ink marks, and most of them were like the letter M, but some of them were "hen tracks."

In the same mail with it was a letter from Washington, D. C., and this was a very good letter. It was directed thus:

MR. SANTA CLAUS,
52 Iceland Street,
Greenland.

According to the marks on the envelope, it had been received in the Washington Post Office at 5 o'clock on the afternoon of Nov. 27, 1889. It had a five-cent stamp on it, as required for foreign letters, and was forwarded to New York that night and reached Copenhagen on Dec. 12 following. It was also sent to the Kryolith Company. The envelope had, like the other one, been directed by a woman's hand, but when Superintendent Smith opened it he found written inside the inclosing letter, of which the penmanship was excellent, but manifestly a boy's work:

WASHINGTON, D. C., Nov. 28th, 1889.

DEAR SANTA CLAUS: I am a little boy 10 years old. I go to St. Aloysius boys school. I am in the 4th grade. I study reading writing arithmetic speling geography catechism grammar and I take music lessons. Dear Santa Claus I would like to have a writing desk and a wagon some nice books a pair of rubbers 2 bokes of ales. If you will be kind enough to bring me these things I would try and be a very good boy and try to make good use of them. Dear Santa Claus when I write again I will describe Washington City as I think all the all the little boys and girls would like to hear about our great city. I suppose the little boys and girls do not know much about Washington. I would like to have snow for Christmas. I suppose you are tired of snow up in greenland where it is so cold. we have rain rain all the time. Dear Santa Claus I hope I have not asked too much of you as this all I have to say at present I will close my letter by wishing you a Merry Christmas and a Happy New Year. I remain your little friend

WILLIE T. A. JACKSON,
739 Second street N. W.

The people now at Ivigtut think that no other letters have ever before been received in Greenland directed to Santa Claus.

JOHN R. SPEARS.

# PUNISHMENT AFTER DEATH.

*IS THERE PROGRESS IN HELL?*

**Is Any Part of the Universe Beyond God's Care?—Christ Preaching to Spirits in Prison—Divine Love Must Overcome Evil.**

The story of Dives, or the rich man and Lazarus, as related by Christ, has been for all the ages since a source of terror, of fierce exultation, or of the most intense grief, according to the spirit with which it has been received. Its graphic picture of the torments in flame and of the impassable gulf has seemed to the casual reader, as well as many who have studied the subject earnestly and prayerfully, as terrible as that dread gate over which Dante saw the inscription:

All hope abandon ye who enter here.

It was undoubtedly from the study of this passage that the poet felt justified in taking such tremendous liberty as this.

When this idea of an unending, hopeless misery became rooted in the Anglo-Saxon and other fierce northern races, who, like our early British ancestors, drank freely from the skulls of their fallen enemies, it did not apparently seem so incongruous as it now does to reverent souls trusting themselves wholly to the mercy and goodness of God. Hell, with its literal fire and brimstone, seemed, perhaps, to these fierce early Christians a good enough place for their enemies; in fact, almost a necessity for a well-constituted universe. Much of this feeling is still held by men who do not discriminate as to their own real motives. Even the best of men occasionally have this feeling when they are least conscious of it. In Mrs. Stowe's story of "Uncle Tom's Cabin" she makes one of her Quaker characters express the idea that hell is at least a necessity for the hunters of men.

Slavery happily is abolished forever, and though enormous wrongs and injustice are prevalent still, men unconsciously have outgrown the feeling of need for a hell to punish those who dwarf manhood and debase womanhood in the name of both religion and law. Men have learned also to search the Scriptures more closely and see if in them are not to be found some of the hidden truths that Christ plainly told his disciples would be revealed to them, which they were not able to bear in his day.

Examining more closely this story of future punishment, as it is not only our right but our duty to do, it is surprising that its lesson could be so wholly misunderstood as it has been. It teaches future retribution plainly—not necessarily by God, except as a loving father may punish his child for that child's best good. There is evidently no possible escape from the punishment, yet it is for good, not evil—the chastening which God gives to all whom He loves, which at first seems grievous, but afterward worketh the peaceable fruits of righteousness in them that are exercised thereby.

Look a little further in this story of the rich man. His main fault seems to be his disregard for the misery of his fellow creatures. He did not care an iota for the troubles of poor Lazarus. After death this troubles him. He is still the hard, selfish man that he was in life, and his only thought is for himself—to send Lazarus, whom he saw in Abraham's bosom, to bring him a drop of water to cool the torment of his flame. The answer to this was, as the result proved, the best possible appeal to the sufferer's better nature. It is quite a comforting thought that religious effort in the nether world is not misdirected, as it often is in this life. Abraham's reply indicates that he possibly had had a great deal of experience in dealing with cases like this. I quote it:

But Abraham said: Son, remember that thou in thy lifetime received thy good things, likewise Lazarus evil things; now he is comforted and thou tormented.

And beside all this, between us and thee is a great gulf fixed, so that they which would pass from us to you cannot, neither can they pass to us that would come from thence.

Note here two points: First, the kindness of the denial in addressing this lost spirit as "Son;" second, the gulf fixed is one evidently of character, which cannot be passed at once either way. The man who only wants to escape hell to escape punishment, and cares for nobody else, is pretty sure to find himself in the fix of this rich man, with a great gulf between him and happiness. Such a man is not happy here until he changes and thinks of others besides himself. This condition he carries with him into the future life.

Note also the wonderfully prompt effect of this appeal to the better nature of the rich man. Instead of further selfish cry for himself alone, the poor spirit thought most of his kinsmen, equally worldly and selfish as himself, and liable to the same remorse for neglected opportunities.

Then he said: I pray thee therefore that thou wouldst send him to my father's house.

For I have five brethren, that he may testify unto them that they come not to this place of torment.

With such spiritual progress as this possible in hell, it is a much more hopeful condition for working to bring men to their right minds than millions of men have on earth. It is quite possible that the terrible pain which in the future life seems like flame, or the worm that never ceases its gnawing, may produce the necessary change from evil to good more surely and quickly than it can on earth.

This is not a strained exposition, reading into the text what is unique for the purpose of reading it out again. It is, I believe, the only explanation of this parable that can be harmonized with what is plainly taught of the Divine character. We are told that God is love and that all men are His children, and that God is infinite in power, justice, and goodness. What more of men than these can we know.

Who shall measure or limit God in dealing with men? When the Psalmist wrote that "high as the heavens are above the earth, so high are God's thoughts above our thoughts and God's ways above our ways," he probably had no idea of the infinite distances or wonders which modern astronomy has revealed to men. Yet that expression is as true now to the devout astronomer as it was 3,000 years ago to the poet-king gazing on the stars of heaven from the housetops of Jeru-alem.

On such a subject no man can dogmatize; but this belief has grown upon me, that our planet, one of the least among the heavenly bodies, has perhaps in the problem of human destiny a puzzle that may exist in no other portion of the universe, i. e., the overruling of all the sum of human wrongdoing for greater good to the entire world and possibly to the entire universe. How this may be done I can well believe that angels desired to look into, but were not able because of their lack of human experience. It is possible for men, by study of their own and others' experience, to learn better than any one else can tell them. This point is fully indicated in Father Abraham's final answer to Dives's second request:

Abraham said unto him: They have Moses and the prophets; let them hear them.

And he said unto him: Nay, Father Abraham, but if one went unto them from the dead they will repent.

And he said unto him: If they hear not Moses and the prophets, neither will they be persuaded though one rose from the dead.

The obvious lesson from this is that the experience of one human soul can only imperfectly be transferred to another. A fine story is told, that when Goethe had become famous a very young man glibly asked him: "What is experience?" Goethe's answer was this: "Experience, my young friend, is that experience which a man experiences in experiencing his experience." The young man turned on his heel with the remark: "You are a fool." Years after he came to Goethe and acknowledged that his too fresh question had received the only possible answer.

What Christ thought of the nether world of remorse and suffering as missionary ground is indicated by the fact that fresh from His earthly experiences His spirit went to the regions of remorse and despair and preached to the spirits there imprisoned. This is delicate ground, but this, I think, is the only possible explanation of that much-discussed passage in the epistle of St. Peter about Christ preaching to the spirits in prison between His crucifixion and resurrection, and, for aught anybody can know, Christ may have been ministering to those darkened spirits ever since. It would be just like Him, rather than sitting on a high throne in place of our crucified Saviour, by those of His children who selfishly had prepared a scheme whereby they could have Christ and heaven and happiness exclusively for themselves.

What could Christ preach to those despairing souls? We may be sure that it was hope and cheer and encouragement, and that, too, drawn from His own recent and sacred experience on the cross. For one brief moment the Saviour of mankind, who loved men as none other ever loved them, gave way to doubt of His Father's love and care in the despairing cry: "*Eloi, Eloi, Lama sabachthani?*" "My God! My God! Why hast Thou forsaken Me?" It was at that dread moment, rather than at His death, that the rocks were rent, and the whole face of nature was darkened. He was recalled to Himself by the mocking cry: "He calleth for Elias. Let be see whether Elias will come and save Him." Instantly there came to the sufferer the memory of Elijah's trial, when he, too, despaired of God, and with it the same cry of his ancestor, David, in a most trying experience. It was, I think, with a cry of joy that Christ responded to the cruel mockers who had unconsciously helped Him: "Father, forgive them, for they know not what they do."

It was in that despairing cry that was fulfilled the prediction that "in His humiliation His judgment was taken from Him," which is universally applied to Christ. Despair is always akin to insanity; is, in fact, its very worst form, for it involves alienage from God, in whom alone men can have a natural and healthful being physically, mentally, or spiritually. The experience of doubt of God's loving care which Christ suffered, on the cross, which had so entirely disappeared a moment later, was a message of hope that it should seem no despairing soul anywhere could bear without renewing its courage.

It matters not what the effect of such doctrine may be, if it be the truth, as I fully believe it to be. It seems plain to me that the world has so far advanced that this belief cannot work injury anywhere. Time was, I believe, when a belief in man's final restoration to good and the overthrow of all evil would have lessened the restraints which the belief in hell imposed on men who acknowledged no other. Now I think a belief that evil men make their own hells, and that all the efforts of God and of good men, spirits, and angels are directed toward getting men out of difficulties they have got themselves into, is a better restraint on men than any other. By their fruits we shall know them. A belief that makes man hopeful and charitable and helpful toward his fellow men seems to me hardly consonant with a theology that dooms the mass of mankind to hopeless misery. In practice the men who hold to a more liberal theology are most kind, loving, and helpful to their fellow men, and this fact is as good a testimony as any to its practical truth.

WILLIAM J. FOWLER.

*THE PROBLEM BEFORE SOROSIS.*

**And the Views of a Certain Wise Man More or Less Lucidly Put.**

"It was an odd theme that Sorosis had under discussion at Delmonico's the other day," said a certain wise man, "and I wonder how the women dealt with it. Some day or other, if I live long enough, I shall probably read the discussion in a volume of the society's transactions, but at present I can only imagine what was said."

"And what was the discussion about?"

"It was resolved," said the certain wise man, "'that the length of the period of active usefulness in human life is contingent in a great degree upon individual resolve and individual effort,' and upon that theme a number of very intelligent women expressed their various opinions. I am sorry I do not know the conclusion that they reached at last, but still I have no doubt that the resolution was sustained. I do not, to be sure, know exactly what 'usefulness' is, or what is the true distinction between 'active usefulness' and passive usefulness, or yet what 'individual resolve and individual effort' are, and so, to some degree, I am speaking in the dark, but still I have no doubt that in Sorosis, when its members seriously consider such a resolution as the one I quoted, the affirmative will always carry the day."

"Why?"

"Well," said the certain wise man after an interval in which he had evidently been collecting his forces, "there are several reasons why this should be the case. In the first place women take loftier, if not top loftier, views of life and what it amounts to than men, especially if they are old men, are likely to take. They take the view of such things that young men take, and you know what would be the outcome of such a resolution when discussed in, say, a college debating society. Then, again, women are more generous, less selfish, than men, or at least appear to be so, because, in the long run, they care for fewer things than men do, and, therefore, more readily give up a greater number of things than men. Heads have to be counted in such matters. Most of their real desires are capable of being counted. I won't say on the fingers of one hand, but on the nails of one or two fingers."

"Love and duty?"

"That's about it," said the certain wise man; "but, after all, it is not a very close analysis when we are thinking of good women. They follow duty because, above all things, they love it, and so love will cover their case. Why is it always that bad women are more like men than good women are? I suppose that one good answer to that question would be that they have less intensely than good women and many more urgent desires in various directions. Whatever the reason may be, the fact is indisputable."

"I disagree with you in regard to what you said about the fewness of the desires of good women, or any other women, for the matter of fact, I have observed a good many of them in my time, and I believe that they have quite as many longings and impulses as men have, only they have learned to curb some of them, simply because they have been forced to do so. To speak in the language of such a psychologist as Prof. William James of Harvard, some of their impulses 'inhibit' others—prevent them from ever amounting to much."

"It all amounts to the same thing in the end," said the certain wise man, "whatever language you put it into. When one impulse habitually inhibits another, the latter becomes atrophied at last, and no longer exists as an impulse. Now, an impulse that no longer impels is no longer a true impulse. Looking at the matter in the light of this fact, you see at once that what I said was true. Women, as a rule, have not nearly so many crying desires and active impulses as men have."

"But what has all this to do with Sorosis and its resolution, that the length of the period of active usefulness in human life is contingent in a great degree upon individual resolve and individual effort?"

"Not very much, perhaps," said the certain wise man, "but then you will remember that when I set out I was not thinking particularly of the contents of the resolution, but rather of the way in which such a society as Sorosis would be likely to discuss it. As to the resolution itself it would, perhaps, be difficult to say whether it has any valuable meaning or is a mere farrago of words embodying only contradictory or irrelevant ideas."

"But it surely is easy enough to see what Sorosis meant to say."

"Oh, surely!" said the certain wise man; "but it turns out that 'the period of active usefulness in human life depends to an great or small degree, upon the resolve and effort of the useful person?' I have known babies, the span of whose life was very small, who had no individual resolve or individual effort, who, nevertheless, passed a period of intense active usefulness to those who knew them."

"It seems to me that their's was passive usefulness."

"Whenever you react to anything," said the certain wise man, "it is certain that that thing has first acted on you. If the action is 'useful' and extends over any length of time, I fail to see why that time is not one of 'active usefulness' on the part of the acting thing. In the case of the babies I spoke of, the 'individual resolve and individual effort' proceeded from the parents to the babies, but the 'active usefulness'—for the youngsters soon died—came chiefly from the babies."

"You know perfectly well that this sort of usefulness was not what Sorosis had in mind when it discussed its resolution. You are too finical, to hair-splitting, and altogether too word-catching."

"When you catch at words," said the certain wise man, "you catch at what they mean, no matter whether the person who uses them intends that meaning or not. In any other case you catch at just nothing at all. I don't believe it possible to frame a sentence in which some theory or other is not implied. Often this is the case with bare words. 'Resolve,' 'active,' 'usefulness,' as Sorosis used the terms, imply, I should judge, at least half a dozen theories mutually overlapping or mutually undermining; some of them metaphysical, some physical, and some psychological. For instance, 'resolve,' if you take it as a *datum*, has to do with psychological theories over which the spiritualists and the associationists would be at loggerheads, while, if you take it in regard to its origin, it involves the metaphysical theories of free will and determinism. The same, or nearly the same, is the case with 'active' and 'usefulness,' though these run to a greater degree into physics. So you see that Sorosis had a big resolution to discuss, whether Sorosis knew it or not. I haven't the slightest doubt that the women made a practical matter of the whole business, and did it all up soundly and in good shape, tied a string around the bundle, and were satisfied."

"What is the use of that sort of talk about women? Any fool can sneer, and the bigger the fool the more the sneering."

"There you go off again at half-cock,"