

## THE DESERET NEWS: WEEKLY.

### IRON AND ITS MANUFACTURE.

"IRON, on account of its abundance, working qualities and tenacity, is probably the most useful and valuable of metals." As Dr. Ure says: "It is capable of being cast into moulds of any form, of being drawn into wire of any desired length or fineness, of being extended into plates or sheets, of being bent in every direction, of being sharpened, or hardened, or softened at pleasure. Iron accommodates itself to all our wants and desires, and even to our caprices; it is equally serviceable to the sciences, to agriculture, and war; the same ore furnishes the sword, the ploughshare, the scythe, the pruning-hook, the needle, the graver, the spring of a watch or a carriage, the chisel, the chain, the anchor, the compass, the cannon, and the bomb." Iron and coal are widely diffused, and the country which has an abundant supply of these two great boons must become wealthy and prosperous if its inhabitants will only make use of the advantages which they have within their reach. Much of England's greatness is due to her abundant supplies of iron and coal. An abundance of the precious metals would have been an injury to her; but nature, in bestowing the vast deposits of iron and coal with which this island abounds, gave her the means through which her people could obtain permanent prosperity and durable wealth. The teeming millions of her children have been sustained, and her power at home and abroad consolidated by the judicious development of the resources buried beneath her surface.

Our Territory abounds in iron, and several beds of coal of a good quality have already been discovered. The two have not been found, however, in close proximity in every instance. Red hematite has been found in considerable quantities, it is said, on the Weber. Some specimens of black band ore have also been found in that neighborhood. A very fine quality of iron ore has also been found in the neighborhood of Willard City, Box Elder County. Large masses lie scattered on the surface of the ground among the foot-hills. Some very fine specimens of ore have been discovered up near the lake in Big Cottonwood Cañon. Experiments made with this ore show that it is of a very superior quality. It contains a small percentage of copper, and is especially valuable for castings, being remarkably fine, close-grained and lustrous. But suitable fuel for smelting purposes is not known to exist contiguous to Willard City or Big Cottonwood. A lean ore is said to exist in the vicinity of the coal beds in Sanpete valley. Sanpete coal is an excellent fuel, and possesses the requisite strength for smelting. Iron might be manufactured there, and be made profitable, if a proper degree of judgment and skill were brought to the business. But it is conceded by those best qualified to pronounce a judgment upon this subject, that Cedar City possesses advantages over every other neighborhood in the Territory for the manufacture of iron. Ore—the magnetic oxide—of a very pure quality abounds there in almost inexhaustible profusion. At no great distance from the ore there is a fine bed of bituminous coal; and in close proximity to the ore there are heavy growths of the pinion pine, than which there is no better timber for charcoal. In few places in the world do the essential materials occur in such abundance, or so near together as to give the necessary facilities for a large and profitable production of iron as they do there. Past attempts in that vicinity were not attended with the desired success and many have, therefore, concluded that the ore cannot be manufactured. Yet in Sweden it is the magnetic oxide of iron from which the people manufacture their famous iron—an iron, the superiority of which has been, until recently, unrivalled. Magnetic ores are also worked in New England, New York and New Jersey, and with success and profit.

Of all the manufactures that of iron is the most important. There is considerable excitement all around us about gold discoveries; but if we could have an iron manufactory, however small, in successful operation in this Territory, it would be worth more to us than the richest and most extensive gold mine ever discovered. Iron enters so largely into all our wants, that we constantly feel its need. The amount sent out of this Territory

for stoves alone, without mentioning nails and hundreds of other articles of iron, is enormous. A stove that can be purchased at the factory for from \$15 to \$30, costs, delivered here, from \$100 to \$200. They are heavy articles of freight, and there is a risk attending their transportation and the tariff upon them is immense. This tariff would give the home manufacturer a great advantage.

This subject of manufacturing iron is one of extremely great importance to us, and every day it is becoming more so. We are a very numerous people and our numbers are rapidly increasing. The want of cheap articles made of iron is severely felt. We cannot make very rapid progress in wealth so long as we have to depend for such articles upon importations. It is not absolutely essential to the manufacture of iron that there should be a large capital. Much can be done by the judicious investment and expenditure of a small amount of capital. The most successful business operations of this Territory have commenced from small beginnings. Probably the experiments made at Cedar City might have been more successful had they commenced in that way. It is proverbial that the small end of the horn is the best end to enter at. If a person enter at the big end, to come out at that end he must turn round; but by entering at the small end, as he progresses it enlarges and becomes more easy.

The first manufactory of iron in England was on a very small scale. In India, Borneo, Africa and many other places it is now manufactured in a very primitive and cheap style. Allusions have been made in print to a newly discovered furnace, called Sieman's furnace, which, from the description given of it, might answer admirably for the manufacture of iron on the Weber. The carboniferous formations in the vicinity of the ore which has been discovered in that neighborhood, are lignite, and it has been doubted whether it would serve the purpose of smelting. But if all is correct that we hear of this new furnace, lignite might be used in it and with successful results. The Catalan hearth is also another cheap and simple form of furnace, which can be used with excellent effects in smelting rich ores where capital is wanting for the erection of blast furnaces. The process of extracting ore by the Catalan hearth has been practiced in the Pyrenees for centuries. We repeat, this subject is worthy the attention of capitalists and practical men in the Territory.

### HORSE-FLESH AS FOOD.

HIPPOPHAGY, or the practice of eating horse-flesh, is a fashion that has, for some little time, prevailed in France, and considerable enthusiasm has been indulged in upon the subject by many leading Parisians. The opposition to the use of horse-flesh, as an article of food was very strong at first, and the authorities delayed the giving of the necessary license to open a place in Paris for its sale, notwithstanding the Council of Health had expressed a favorable opinion of it. Since that time, however, a great change has taken place. There are now twenty-three butchers' shops in that city, at which nothing but horse-flesh is sold. Millions of pounds of this meat have been sold for public consumption, and it has been disposed of at a price much below that of beef—a result, which the advocates of hippophagy think is a great boon to the poorer classes.

There are many leading minds in England which have been imbued with the ideas prevailing in France upon this subject, and they have taken steps to introduce horse-flesh into use as an article of diet. It is not long since we read of a horse-flesh banquet gotten up in London, at which many prominent men, some one hundred and sixty in number, attended. The price to each guest was a guinea and a half. These persons deemed it necessary to take this plan to show that they were not mere theorists, enthusiasts or epicures desirous only to create a new sensation. Statisticians declare that in Great Britain there are 75,000 horses, free from disease and available for human food, slaughtered annually. According to the view of the partakers of the banquet this was food, palatable, nutritious and cheap, too good to be thrown to dogs, when animal food was so dear as to be partially beyond the reach of their poor countrymen. They thought it a practical question of the highest importance, so they got up a dinner, not to gratify the palates of a few, or to introduce a new dish into the rich man's house, but to

popularize a new article of food for the poor. Horse-flesh, it is said, can be sold for five cents per pound, while beef and mutton sell at from sixteen to twenty-four cents per pound, and they who advocate its use say that it is not less succulent and appetizing than other animal food. They have also succeeded in obtaining the declaration of a high medical authority to the effect that horse tea is more nourishing than beef tea. They are desirous of making a favorable impression on the public mind, and wish to convince the poorer classes that they have much to gain by the cheapening of animal food and the adoption of horse-flesh as an article to be eaten. Whether the example which these gentlemen have set will be followed by their poor countrymen remains to be seen. An Englishman is proverbially attached to his "roast beef," but, in view of the reduced price, he may be induced to accept "roast horse" instead. Whatever the flavor of the latter may be it certainly does not sound as well as the former, yet a horse-eater would attribute this entirely to prejudice.

If we had to choose between the horse and the hog, we believe that if prejudice could be overcome, the decision would be given in favor of the former animal as the most healthy and probably palatable of the two. A horse is a clean animal; a hog is not to be compared to it in this respect. But if we had our choice, we would much prefer dispensing with both. If the cheapness of horse-flesh be the recommendation urged for its adoption as an article of food, why stop with it? Why not abandon all prejudice respecting animals and include the dog as an animal to be eaten? It can be raised at little expense, and its flesh can be sold very low. It is also a much cleaner animal than a hog. And then, if the arguments used by the advocates of hippophagy respecting the millions of pounds of animal food which are lost through not eating horses, be entitled to any weight, they will apply with equal force to dogs. The flesh of dogs is said by the Pacific Islanders, who are fond of it, to be wholesome and nourishing; they prefer it to that of every other animal. The number of dogs which are yearly killed in Great Britain must be very great. If animal food, at five cents per pound, be the highest consideration and the great desideratum, they might as well be economized, and a dog banquet be provided for the nobility and gentry of Great Britain to popularize the food among the poorer classes!

The reasons advanced for eating horse-flesh can be extended much farther and to many more animals than their authors would probably desire. But we are decidedly of the opinion that this movement will be attended with bad effects to the people who adopt horse-flesh as a food. Moses was a very wise legislator. At least Christendom by its acts have acknowledged him as such. He was doubtless an equally good physiologist. We have never yet seen any reason to doubt the excellence of the rule or law which he gave to Israel; and we firmly believe that the people who are governed by it in the selection of the animals they eat will enjoy much greater physical health and durability and possess a higher moral tone than those who violate it. His law was: "Whatsoever parteth the hoof, and is clovenfooted, and cheweth the cud, among the beasts, that shall ye eat."

### DISCOURSE

By Elder JOHN TAYLOR, delivered in the Tabernacle, Salt Lake City, October 7th, 1867.

REPORTED BY DAVID W. EVANS.

In rising to address you, I do not know whether I shall be able to make myself heard or not; but I will do the best I can. We are met here in, what is termed, a conference capacity. We have assembled under more pleasant auspices than we have formerly enjoyed on similar occasions; and we have reason to be grateful to God, our Heavenly Father, for putting it into the heart of our President to build a house like this; and then, we have reason to be grateful to the people for carrying out his wishes and designs. In this is exhibited the blessing of wisdom from on high and the power of union among the people of God.

I have listened to a great many propositions, or principles, that the President desires the Elders of Israel to speak about; and the people to listen to, and carry out. If we as a people were all under the influence and direction of the Spirit of the Lord, all these things

would be simple and easy to accomplish; and it is only when there is discord, and feelings at variance with the principles of truth, that we experience anything like hardship in relation to the practice of these or any of our duties.

We profess to be the people of God; the Saints of the Most High; under the guidance and direction of the Almighty; we profess to have chosen Him for our king, ruler and lawgiver; and having chosen Him for our Head, Guide and Director, is it too much to ask of us to yield obedience unto His law; to submit to His authority; to be governed by His counsel; to follow His dictation and to seek to carry out His purposes and designs, in relation to us who are His professed people? We are indebted to God for all the light, truth and intelligence that we are in possession of; whether it relates to the gospel, or, to anything else that has been developed in our midst. In fact the gospel itself embraces all truth, pertaining to this world, and to the world that is to come. We are standing here as intelligent men; as Elders of Israel; as sons of the Most High, whose minds and spirits, have been enlightened and inspired, more or less, according to our faithfulness and diligence, with the light of revelation that flows from God; and when we reflect we must know that, as it took the wisdom and intelligence of God to enlighten the human mind, preparatory to the introduction of the first principles of the gospel of peace and to set in operation the kingdom of God upon the earth, that it necessarily requires the same spirit, intelligence, wisdom, forethought, revelation and knowledge of things as they exist, to carry on and perfect this kingdom upon the earth. And however interesting it may be for us to dwell upon things that are light, trifling and visionary; however pleasant it may be for us to dwell, sometimes, upon the things of the future and the glory that is associated with the perfection of the kingdom of God; yet to every man of intelligence and reflection, it must be obvious that there are a great many plain, practical matters of fact to be brought before our minds, which enter into the every day affairs of human existence that we, as heads of families, as presidents, apostles; as elders in Israel and as bishops over Wards, can not consistently ignore; but which we must carry out if we would rise to that standard of excellence that we sometimes desire, and be prepared for that exaltation which we anticipate.

In regard to the principles of education to which our attention has been called by our President; I would ask what is the difference between what are called the civilized and the savage nations of the earth? All the difference that exists is the result of education. When we look at the red man of the forest what do we behold? We see a man who is able only to obtain his living by hunting or fishing, or by digging the roots as they grow spontaneously in the ground. What is the range of his thought or intelligence? How expansive are his ideas? If he can obtain a good hunting ground and find plenty of elk, buffalo, deer and antelope, he has reached the climax of his hopes. That is all he anticipates. Does he know how to gather around him the comforts of life? No. Does he know how to make the earth yield its varied productions to satisfy the wants of man? No. Does he know how to make a wagon, cart, plow, harrow, or some of the most simple things in existence to supply the wants of man? No. Does he know how to fabricate cloth, to keep himself warm? No. He has to depend upon the skins of beasts that range over the plains. Does he know how to prepare a building to screen himself and family from the inclemency of the weather? No, he knows nothing about these simple things; to say nothing about railroads, steamboats, electric telegraphs, the geography of the earth and a knowledge of the people who live upon it, or anything in relation to the earth or the heavens. He is perfectly ignorant of these things; and just in proportion as men are correctly educated, so are they prepared, in connection with the gospel of Jesus Christ, to fulfil the measure of their creation on the earth. To do this correctly, education and the gospel necessarily go together. It is said that knowledge is power, and this is true whether applied mentally or physically. You take, for instance, a man who has been well educated; that education teaches him the nature of the earth he lives upon, the qualities of its soils and productions, the properties of the ores within its bosom, how to reduce, amalgamate and mix those ores; his education teaches him how to combine iron