

100,000,000 times swifter than light. All these inconceivable velocities must exist, if we admit the apparent diurnal motions of the stars to be real.—These arguments, if not demonstrative, carry with them an irresistible conviction that the diurnal motion must be referred to the earth and not to the heavens.

It is a principle of mechanics, founded on the laws of motion, that the more distant a body is from a central gravitating force around which it revolves, the less will be its velocity, and the greater will be its period of revolution. Under the present laws of gravitation, all bodies which do really revolve around the earth must have velocities which vary according to the inverse square roots of their distances: that is, bodies situated from us 4 times the distance of the moon, will have only one half the velocity that the moon has; because 1-2 is the inverse square root of 4; those which are 9 times further from us than the moon, will have only 1-3 of her velocity; 16 times the distance will give 1-4 the velocity; 100 times the distance will give an orbital velocity of 1-10. The distance of the sun being 400 times greater than the moon would require a velocity of 1-20 of that of the moon's, in order to balance the centrifugal force of the earth's gravitation; consequently, if the sun and moon's apparent diurnal motions be admitted as real, the sun would have a velocity 8000 times too great for the earth's gravitation in order to get round the earth as soon as the moon. Hence the sun's diurnal period, compared with that of the moon's, would be 8000 times shorter than it should be according to the known mathematical principles of mechanics. But even the moon's diurnal period, if performed in one day, is about 27 1-3 times too quick to balance the centrifugal force of the earth's gravitation, and therefore, the sun's true period, compared with the moon's true period, would be 27 1-3 times 8000, or more exactly 218,674 years, which reduced to years, would be 534 years and 302 days. The intensity of gravitation at the earth's surface has been determined by experiment, and knowing the earth's radius, it is a simple problem in mechanics to calculate the period which a body must have in order to revolve around the earth without falling; this would be 1h 23m 22s. Now if gravity is a force which varies inversely as the square of the distance, (as it may easily be proved to be) then it may easily be calculated how far all bodies must be placed from the centre of the earth in order to have their periods equal to the diurnal period, and none of the heavenly bodies must be placed any nearer or farther off than this, if so, their periods would be less or greater than one day, and as it is known that none of them are placed at that distance, we know that their apparent diurnal periods are not real. This, then, is a demonstration of the diurnal rotation of the earth to all persons who are capable of solving these mechanical problems.

Another demonstrative evidence that the earth has a diurnal motion, may be obtained from experiment. Let a ball be dropped from the top of a high tower or precipice; if the earth has no rotation it will fall perpendicularly to the surface of the earth; but if it has a rotation from west to east, it will fall a short distance to the east of the perpendicular line at the foot of the tower. This is occasioned by the unequal velocities of the bottom and top of the tower, resulting from the earth's rotation; for instance, the bottom of a tower or perpendicular precipice one half of a mile high, situated on the equator, and being nearer the centre of motion, would move slower than the top, which is half a mile further from that centre. The time of falling would be about 13 seconds; during which time the top of the tower or precipice would describe an arc about 2 1-2 inches longer than the bottom, and the ball, passing through this velocity when it first leaves the top, will fall about 2 1-2 inches east of the foot of the perpendicular line. The greater the height from which it falls, the greater will be its deviation from the perpendicular. Experiments of this nature have been performed with the greatest accuracy, and the results have proved beyond all controversy, that the earth really has a diurnal rotation from west to east.

The diurnal rotation of the earth may be proved to exist from a careful consideration of its true figure. When we loosely speak of its figure, we represent it to be a sphere—a globe, because it so nearly approximates such a figure; and it is only by the most careful observations and measurements that we find any deviation from a sphere. Indeed, before the days of Newton, the earth was generally supposed to be a perfect sphere. But that great philosopher demonstrated that a globe composed in part of fluid materials, could not be a sphere, by having its polar diameter shortened and its equatorial diameter increased. His calculations showed that the earth, if in the shape of a turnip, or an orange.—Subsequent observations have verified his calculations, and theory to be true; and the earth is no longer, in strictness, considered a globe, but an oblate spheroid or spheroid, having the diameter which coincides with the axis 1-300 shorter than the equatorial diameter.

It will be seen that the oblateness is so small that it does not differ much from a sphere. If we held in our hand a wooden model of our globe whose diameter at the equator was 15 inches, the polar diameter would lack only 1-20 of an inch of being the same length—a quantity so small that it could not possibly be detected by the eye, but would require very nice, delicate measurements to show its deviation from a globe.

For the purpose of determining the ellipticity of the earth, commissioners of various nations have been appointed by their respective governments, and furnished with the best instruments to measure the arcs of the meridian. By a comparison of all these measurements, it is found that the length of a degree increases with the latitude, being the least at the equator and greatest at the poles; therefore, the curvature of the earth's surface must be greater at the equator, and must decrease with the latitude, and be least at the poles. These meridional sections which pass through the poles, cutting the equator at right angles, are ellipses; and the geometrical properties of an ellipse are such that we are enabled to assign the proportion between the lengths of its major and minor axes, corresponding to any proposed rate of variation in its curvature; and having determined the proportion of the two axes or diameters, we can still further determine their absolute lengths by knowing the length of a degree in any given latitude. Mr. Airy, by a combination of 13 different arcs, measured in different parts of the earth, has determined its ellipticity and given the diameters as follows:

MILES.	79:5648
Equatorial diameter	7920.178
Polar diameter	7899.178
Polar compression	20.478
Proportion of diameters as 299.33 to 298.33.	

Mr. Bessel has more recently calculated the same from a combination of ten of the measured arcs, and his results do not differ from the diameters as given by Mr. Airy the 1-16 part of a mile.

From a comparison of the above diameters, it will be seen that the equatorial regions of our earth are about 13 miles higher or more distant from the centre than the polar. This ascent from the two poles towards the equator is not sudden, but gradual, the elevation increasing at an average rate of about one mile in every 6 deg. 48 min. of difference of latitude, or 1 mile in 470 in travelling from the equator to the poles, there would be a rapid descent of 11 feet per mile. The Gulf of Mexico, at the mouth of the Mississippi river, is 4840 feet higher than the Salt Lake City; and the Atlantic and Pacific oceans at the equator are elevated more than 3-4 miles above our city, and more than 3-4 miles higher than the highest peaks of the mountains which cover our valleys on the east. The mouth of the Mississippi river is more than 1 mile higher than the city of St. Louis, which is situated upon its banks some seven hundred miles to the north. Its mouth is also several miles higher than the tops of the highest mountains from which it takes its rise. The equatorial ocean is 13 miles higher than the Arctic and Antarctic oceans. All these are phenomena arising from the spheroidal form of the globe.

When we speak of different mountains and places being elevated above the sea level, we have no reference to their relative elevations above the centre of the earth, unless when compared with that portion of the sea which has the same latitude as the

places themselves. When we say that our city is elevated 4300 feet above the sea level, we do not mean that it is so much higher above the centre of the earth than the equatorial or polar seas, but we mean that it is so much higher, or more distant from the centre of the earth than that portion of the sea which is in 40 deg. 45 min. of N. latitude. That protuberant mass of land and water which envelops our spheroid at the equator is more than 2 1-2 times higher above the poles than the highest mountains upon the earth are above the sea level.

Perhaps some of this audience may be startled at these declarations and ready to call them in question as being contrary to their experience. How, it may be enquired, can water run up hill? Or how can the great ocean be prevented from rushing down from the equator to the poles? If there is an average of 11 feet fall per mile, how can water be kept from descending such a declivity? We answer, that it is the diurnal rotation of the earth upon its axis that preserves the earth in its present form, and that maintains the waters in their present state of equilibrium, and that causes the waters of the Mississippi to run up an acclivity on its ascending journey towards the equator. Were it not for the rotation of the earth, the great protuberant mass of the waters would rush down from the torrid zone, with awful and tremendous force, inundating the highest mountains in the temperate and frigid zones; the foundations of the great deep for hundreds of miles each side of the equator, would be laid bare, and a zone of dry land would appear encircling the whole earth from east to west, connecting the equatorial portions of the eastern and western continents—while their northern and southern portions would be overwhelmed in the midst of two great polar seas. The surfaces of these polar seas would no longer maintain their elliptical form, but would take the form of a sphere; every part being equally distant from the centre of the earth.

The equatorial continent thus formed, would in the lapse of ages be worn down by the constant action of the seas, rains, &c.; and the worn off fragments and particles would eventually be scattered over the bed of the oceans in the form of pebbles, sand and mud, which would, like the fluid portions of the earth, seek their own level in the deepest portions of the polar seas; and in this manner the flattened portions of the solid spheroid would become rounded, and the whole earth, both solids and fluids would assume the spheroidal form; and thus, in the course of millions of ages, under the present laws, if no rotation existed, the solid portions of our spheroid would become covered with a spherical ocean of uniform depth. Geological facts seem to afford abundance of evidence that the existing continents and islands have all undergone changes as great as the one which we have just described; they appear to have been, more than once, torn into fragments, reduced to powder, submerged in the great deep, and then by some process constructed and made new.

Let us next consider the case of a perfect globe of the magnitude of our earth, covered with an ocean of water of uniform depth, composed of materials of uniform density, or, at least, of a density increasing at a uniform rate from the surface to the centre.—All the particles of such a globe, if at rest, would be in a state of equilibrium. Now let such a globe begin by degrees to rotate upon an axis; let the rotation be accelerated until it shall perform one revolution in 23h 56m 4s; it will then have a velocity equal to the earth. When this rotation commences, each particle, situated within the axis, will have a centrifugal force, or a tendency to recede from the axis, in proportion to its distance from it.

Near the poles, where the centrifugal force at the surface of the globe is the weakest, it acts nearly at right angles to the force of gravity; the watery fluid under the influence of those two forces would be urged towards the equator; as the water proceeded upon its journey, its distance from the axis of motion would be increased, and its centrifugal force would consequently be more powerful, though it would act at a disadvantage in consequence of its being more in opposition to the central force, that is, forming a greater angle with it than when near the poles; but still the direction of the resultant motion would be towards the equator. The obtuseness of the angle under which these two forces operate would continue to increase from the pole to the equator, at which place the centrifugal force would not act in direct opposition to that of gravity, and consequently the particles would have no more tendency to recede either to the north or south; but the whole effect of the centrifugal force now would be to render all bodies specifically lighter by their upward tendency towards the centre.

Under these circumstances, it is easy to perceive, that the globular form of the ocean would no longer be the form of equilibrium, and that the ocean surrounding the two poles must, in obedience to the laws of motion, proceed towards the equator and there form a protuberance of a sufficient elevation to counteract any further motion of the fluid particles, arising from the centrifugal force of rotation. The form thus assumed by the fluid ocean would be an oblate spheroid, which would be a permanent form of equilibrium as long as the rotation continued uniform. And it is also easy to conceive that the solid nucleus of the earth for thousands of miles around each pole would be laid bare, forming two great polar continents, while the ocean would encircle the whole earth, forming a belt or zone several thousand miles in breadth, of which the equator would be in the midst.

These polar continents, as we observed concerning the equatorial continent, would in the lapse of many ages become worn down and reduced to pebbles, sand, mud, &c., and be submerged beneath the waters of the sea, under the same laws of force and motion which govern the fluid elements, it would be carried towards the equator and arrange itself in a spheroidal form similar to that of the ocean with which it would be enveloped. Thus the whole earth would be covered with an ocean of nearly uniform depth, and both the solid and fluid portions would be in equilibrium, having a degree of oblateness sufficient to balance the combined effects of the centrifugal and centrifugal forces. If by any means the rotation should be increased, the oblateness would be increased; the fluids upon the surface would first yield to the impulse, and afterwards the solids would, by a slower process, arrange themselves in the form of equilibrium, accommodated to the increased degree of rotation. Should the rotation be decreased down to its former velocity, an equatorial ridge of mountains would be formed. Should an increase or decrease of rotation take place these ridges or mountains would be broken themselves in the form of equilibrium, the consequences would be, that ridges or continents would be formed in different latitudes which in places that were of a softer texture might be worn down and submerged beneath the sea; while those of a harder and more unyielding nature might still be standing above the surface of the water in the form of continents and islands. We do not pretend to state that this is the way that the continents and islands of our earth have received their present form and position; but we merely state that such would be the natural tendency, were the earth to receive an addition or diminution to its velocity of rotation before the solid nucleus had time to fully accommodate itself to its different states of equilibrium, corresponding to its different rates of velocity. Whether the velocity of rotation has ever been greater or less than at the present time, we have not as yet discovered any means of ascertaining.

The fact that dry land and mountains do exist near the equator, elevated several thousand feet above the sea, would seem to indicate that the velocity of rotation has, at some former period, been greater than at present; otherwise there must have been some sudden convulsion sufficiently great to upheave from the bosom of the great deep the solid portions of the earth to their present elevation in those regions. Observation shows that there has been no perceptible change in the period of the earth's rotation during the last 2000 years. If our earth were a globe when the rotation was first impressed upon it, its period must have been shorter, or its velocity greater than it would be after having assumed the spheroidal form; for the ocean, receding from the poles where the centrifugal force is the least, and proceeding to the equator, where that force is the greatest, would, during its progress, be constantly accelerated in an eastern direction by virtue of its increased distance from the axis of rotation; the acceleration at first would not be sufficiently great to keep up with the velocity of the spheroidal mass over which it was

passing; consequently it would lag behind, producing a rapid current towards the west, which, combined with the current proceeding towards the equator, would in the northern hemisphere incline it to the north-west, and in the southern hemisphere towards the south-west. These currents acting upon the spheroidal form of the earth over which they passed in a direction from east to west, contrary to that of rotation, would have a tendency to retard that rotation. The momentum gained by the protuberant mass brought from the poles, would be exactly equal to the momentum lost by the whole spheroid. Mathematicians, by knowing the proportions of the masses and velocities, could easily calculate the original velocity and period of the earth's rotation as a globe, from its present velocity and period as a spheroid.

Among the numerous phenomena resulting from the rotation of the earth may be mentioned the diminution of the weight of all bodies in proportion to the amount and direction of the centrifugal force with which they are affected. At the equator, the decrease of weight is the greatest, amounting to 1-289 of its whole gravity.

The exact amount of the centrifugal force can be calculated if we know the dimensions of the earth and the time of its rotation. For instance, the equator all bodies on the surface of the earth describe an arc of about 1325 feet in one second of time; this arc deviates from a straight line or from the tangent about 9-3 of an inch; and a body will fall during one second about 193 inches. During that time that a body would fall, by its weight, 193 inches, it would have an upward tendency of 2-3 of an inch, caused by the centrifugal force. This 2-3 of an inch is nearly 1-289 of the whole distance through which a body would fall in one second if the earth were at rest. Hence a body would fall in one second 193 inches if there were no rotation, and 192 1-3 inches with its present rotation; the downward tendency being diminished 2-3 of an inch by the tendency to recede from the centre in the direction of the tangent. Hence, also, bodies that weigh 288 lbs at the equator, would weigh, at the same place, 289 lbs if the rotation did not exist, and the earth were maintained in its present shape. As you recede from the equator towards the poles, the centrifugal force diminishes, and the weight of bodies increases. The rate of increase being the square of the sign of the latitude; for instance, if we were to purchase at the equator 455 lbs weight of gold dust or any other substance, and bring it to the latitude of our city, it would weigh 456 lbs, increasing one pound by the increase of gravity; 194 lbs at the equator, if transported to the poles, would weigh 195 lbs. Thus it will be seen that the fraction 1-289 expresses the excess of polar gravity over the equatorial.

There are two causes for the increase of gravity in going from the equator to the poles; one is the diminution of the centrifugal force, and the other is the elliptical form of the earth. This form alone, independent of the centrifugal force, would, at the poles, increase the weight of bodies 1-590 part; this added to 1-289, the fraction expressing the increase of weight when the centrifugal force is reduced to nothing, becomes equal to 1-194; that is, 194 lbs at the equator, if transported to the poles, would, in consequence of its removal from the influence of the centrifugal force, receive an addition to its weight amounting to a trifling over 2-3 of a pound; it would also receive another addition to its weight arising from the elliptical figure of the earth, amounting to a trifle less than 1-3 of a pound; from both of these causes it would weigh just 1 lb more than at the equator.

The variation of that force called weight or gravity, in different latitudes, may be very accurately determined by ascertaining the velocity with which a body falls in a given time, as one second. One of the best methods of ascertaining the velocity is furnished us by the principles of mechanics. It has been mathematically proved from mathematical principles, that if one and the same pendulum be made to oscillate in different parts of the earth, that the squares of the number of oscillations in equal times at different stations will be to each other as the intensities of the force of gravity at those stations. For instance, if at the equator, a pendulum of a certain form and length, make 86,400 oscillations in 24 mean solar hours, and when transported to the Great Salt Lake City, it is found that it would also receive another addition to its weight, at the equator is to the intensity of gravity at this city as the square of 86,400 is to the square of 86,495; or as 1 to 1.0022; or in other words, a mass of matter weighing 10,000 lbs at the equator will weigh at this place 10,022 lbs.

Great numbers of experiments of this kind have been made with the greatest possible accuracy in all accessible latitudes; and by these means the law of the variation of gravity in different latitudes has been developed, by which we are enabled to calculate, without any further observation, the difference of the weight of bodies in different latitudes; and by knowing the difference of the intensities of this force at different latitudes, we can calculate the true figure of the earth and the degree of its oblateness without measuring an arc of the meridian. Who could have supposed that by the simple oscillations of a clock pendulum, mathematicians could sit in their chairs, and determine the proportions between the equatorial and polar diameters of our earth? But this is what they do, and we are indebted to their genius for the skillful application of that grand and useful science called mathematics. It is highly satisfactory to know that the shape of our earth as ascertained by pendulum experiments, agrees with the shape deduced from the measurements of arcs of the meridian. And thus from two entirely different processes we arrive at the same great conclusion; and having thus demonstrated that the earth is an oblate spheroid, we know that it must have a rotation upon its axis in order to preserve the spheroidal form, so far, at least, as the fluid portions of its surface are concerned.

This may be illustrated by a very simple experiment within the reach of any one to perform. If a ball partially filled with water, be suspended by a long string, and made to revolve swiftly around, the water within will be seen to arise around the sides of the ball, while the centre will be proportionally depressed; the greater the rotation, the greater will be the depression of the centre, and the higher will the water arise round the interior sides of the ball; here then, in this simple illustration, we can see how water may be made to run up hill from the centre of the ball; and when it has once ascended, how its surface may be maintained in the form of a steep declivity by the continued rotation. As the water around the sides of the ball are maintained at a greater elevation than at the centre or axis of rotation, so is the water at the equator maintained at an elevation of 13 miles above the water at the poles, merely by the earth's rotation. As the rotation of the ball gradually diminishes, the water gradually descends from the sides of the ball towards the centre, which may be revolved the pole of the axis around which the ball revolves. So, in like manner, if the rotation of the earth should be gradually diminished, the water of the ocean would gradually descend from the equator towards the poles, and the water at the equator would be gradually depressed, while the protuberance at the equator would be proportionally increased. If the rotation should become a little over 17 times faster than at present, the water and all bodies at the equator would entirely lose their weight, the centrifugal force or tendency to recede from the centre of motion being equal to the centripetal force of gravity; while the polar gravity would be greatly increased by the increased eccentricity of the elliptical form of the earth.

Under such a condition of things, a mass of lead which now weighs 1,000,000 of tons, could, with the greatest ease, be picked up and carried upon our heads. Indeed, if our earth revolved upon its axis once in 83m and 22s, a mountain of lead of any other substance placed 10 feet in the air above our heads at the equator, would have no tendency to fall or recede from the earth; and nothing, if the rotation were still increased, all the waters of the ocean, together with the mountains, rocks, and all other solid substances, composing the upper stratum of the earth's surface near the equator, would recede from the earth upwards, or rather in the direction of the tangent.

DESERET NEWS.

SATURDAY, JAN. 10, 1852.

To the Saints.

While the Public Works are progressing, and the bishops, superintendents, architect, foremen, mechanics, clerks, and all parties immediately interested and closely connected therewith, are learning their several duties, and striving to live and act in accordance with light and intelligence presented, the saints generally, in these valleys, need not suppose that there is nothing for them to do, or nothing more than to pay their tithing, for every individual is a part of the great whole, and God requires every one to labor with all their might, mind, and strength, in building up his Kingdom.

If the laborers on the public works only worked out their tithing, would they not fulfil the law equally with others who labor on their own farms, in their own shops, or are constantly concerned in their own trade, traffic, or merchandize, and out of the income thereof pay their tithing? Most certainly! But would that labor alone accomplish the work to be done; build houses, barns, storehouses, shops, laboratories, temples, &c. &c. No! For the public works to prosper, the laborers must devote all their time and talents to the business in which they are engaged, regardless of personal convenience, comfort, or reward. And for their integrity, undivided attention, and diligent perseverance in days gone by, God has blessed those laborers, and made a way for their escape from impending evils, in a most remarkable manner, insomuch that many have become so attached to their calling, that it would be almost like parting spirit and body, to separate them from their daily avocations.

Times are better with them now than ever before, since the commencement of the Temple in Kirtland, so far as food and raiment are concerned, for themselves and families; but this seems not to elate or depress their spirits, or change their course, any more than their former privations; for God was with them then, he is with them now, and ever will be with them, to bless them, while they continue to devote all their powers to prepare and build a house to his name.

The public laborers are mostly poor, their time is their all, and all saints who would share with them in their blessings when the Temple is completed, must be willing to share in their privations and inconveniences also, even to the sacrifice or use of all they possess, whenever the same shall be required; and now is the time to begin anew. "Thanksgiving Day" has commenced, and let all the saints do from this time forth according to the proclamation, and as they will wish they had done, when time shall be no more with them on earth.

But the enquiry returns upon us "What is wanting now; have we not paid our tithing, our tenth, and done all that is required?" O yes, many of you have, and many more will as soon as they can get their grain threshed, and other things prepared; but, brethren, having done well hitherto, let us not cease to do well, but leave the things that are behind, and go on unto perfection.

New Year, 1852, has arrived, and we wish you all a HAPPY NEW YEAR, yes, a thousand of them; but don't forget that as another year is opening, as the year is good in these valleys, as cows are increasing in milk, and as tons of butter are made every week, almost within speaking distance of the tithing office, that not a pound of every hundred due, reaches its appropriate destination; and those men who are daily engaged to erect buildings which are necessary for you to get your endowments, are as destitute of butter as though the thing was unknown.

And why is it thus? Because butter has been scarce for a few weeks, some of the merchants have offered 33 per cent more for the article than it was worth, compared with other products of the valley; and knowing that some would have it, let the cost be what it might, they have taken this advantage of the market to convert a few goods into cash, at the extra expense of the saints; for the temptation has been a little too strong for some, and they have sold their butter at an exorbitant price to the merchants, just to draw that exorbitant sum, in the end, out of their brethren; the merchant has made money by the operation; and while the saints have been, by this process, drawing heavily on the saints, butter has been worth so much, it has been very hard to pay their tithing. "Yes, we will pay the tithing by and by, when butter is a little cheaper; and you, dear friends, engaged on the public works, be patient till butter is cheap and plenty, and you shall have all you want, and if you have to eat bread and water a little while, never mind, butter will taste the better when you get it." There are many others who have sold no butter, but made little enough to make themselves comfortable through the cold weather, and they can't spare a tenth till they make more, till butter is plentiful. But the laborer can do without entirely. Is this the thanksgiving that the Lord hath appointed? No! verily, no! And this thing is sure, that a pound of butter, in a season of scarcity, is worth as much in its place and at its time in the Lord's Store House, as ten pounds in its place at a time of plenty; and if this is not so, why do not the saints hand in their butter, at all seasons when it is due, and not withhold in a time of scarcity?

Now is the time for the saints to hand in their butter, eggs, and all such nice things that they are in possession of; so that the public laborers can help them keep Thanksgiving, and all hearts be made glad together. And we recommend to the bishops throughout these valleys, to keep their ears open, and when they hear their neighbors' pigs squeal, just step over and see how many have died, and what they weigh, and what proportion arrives at the tithing office; for many tons of pork went out of sight last year, and the bishops made no record of it, and many more will this year, if the bishops don't attend to their duty, and the Lord will require the cost at the bishop's hands.

These things are meant for whom they are intended, and intended for whom they are needed. There are many who do not need such preaching, and they enjoy the blessing of God in their hearts; but such as need the help of their bishops to do their duty, will bless their bishops for it when they get through. God is looking after the things of his Kingdom, and if his servants don't help him he will be looking after them soon, and put men in their place who will do their duty, not for one short day only but for a thousand years.

When you see a man who wants to manufacture leather, and has not the means to commence, turn out your means to him, or take a share in the tan vats, and help the tanner, till he is able to help himself, in accomplishing the business which is required of him; and if you do not, what will become of your bare feet, of the feet of your children, and of the public workmen, for you have not money to send to buy more, and it will be wanted before you could get it, if you had the money to send; while all we ask of you can be done without money.

Many have been paying flour at the office for tithing on their wheat, but it can no longer be received. When flour grows in the field, ready hulled, then and not till then will be the time for the saints to pay their grain tithing in flour; then we shall have a flour store house, but at present the store house is prepared for

wheat, and all grain tithing must be in grain. And all payments made at the office are better in grain than flour; and the saints will please notice this and govern themselves accordingly. And when we wish flour for taxes we will give notice through the News. And if the News grain is wanted, we have no storage for flour. (To be continued.)

NEWEST FASHION.—We understand that one of the ladies of Utah appeared in the public assembly last Sabbath, clad in a buckskin sack, beautifully ornamented with the same material; the exhibition we have every where heard spoken of in the highest praise, and we only wish that it had been our wife who had set this noble example. Surely this sister has manifested her faith by her works; she believes in home manufactures, and her name will be registered in the archives of Utah, as a pattern worthy of imitation by all Ladies of Deseret who to with your might, and do likewise, and your husbands will bless you.

HOME MANUFACTURE IN EARNEST.—Capt. David Evans, Representative from Utah county, has made his appearance in the Representatives' Hall, clad in his own family manufactured habiliments, worthy the imitation of a nabob. We understand his wife cut and made his garments as well as spun and wove the cloth. Mrs. Evans is worthy to stand by the side of the lady in the buckskin sack, whose name will be forthcoming by and bye. Legislators what say you for home productions?

WANTED.—IMMEDIATELY to go to work, a man who knows how to convert the horns that are now wasting in our valleys, into good comb. Enquire at the Post Office.

GLUE wanted immediately. Save all your cattle's feet and pates, and make glue. Printers' rollers cannot be made without glue; will you make us some? At the same time save all the neat's foot oil you can, this is a first rate article for the tanners.

Public meetings are held at the Council House every Sabbath, at 11 a. m.; 2 & 6 afternoon.

The Tabernacle is nearly enclosed.

The total eclipse of the Moon on Tuesday evening, the 6th inst., was mostly invisible on account of the clouds.

A splendid party was given by Bishop Hunter, on Tuesday the 6th inst., at the Bath House, to the wives of those elders who have been absent more than one year on foreign missions. Presidents Young and Kimball, and many of the first elders were present.

Thursday noon, we have no report from mails due the last ultimo.

The weather is very mild, clear, but no snow in the valley.

We are credibly informed that there are certain individuals doing business in our city, who will not take the valley coin without a discount of 25 per cent, more or less, and at the same time will pass it to others at par. All persons will do well to report such as make a discount for valley coin, in ready pay for goods, that the public may not be imposed upon, but leave all such goods to manufacture their own customers; for if valley coin in exchange, is not as valuable as goods, at the current prices offered in our market, we recommend our friends to keep their coin, and not insult their neighbors with such miserable trash as virgin gold.

Most of our editorial lies over for want of space.

The friend who borrowed our double glass, blue spectacles, some time since, will confer a favor by returning them to the editor.

Brethren, what will you do for team to haul your wood, and plough your land next spring, if you sell all your oxen this winter, for a song? and it may cost you \$100 per yoke for the same next spring, and you without money to buy them.

HOGS BRISTLES.—All the bristles in U. T., large enough to make brushes of any description, are wanted immediately at the Tithing Office; and the brethren are requested to be particular in saving every one, and present them without delay.

HAIR.—Tanners will be particular to save all the hair from their hides in tan, and deliver the same to the Tithing office. It is wanted to mix with mortar.

BELLOWS.—A manufacturer of hand bellows is much needed. Who will go into the business?

FUR ROBES.—Let all who are in want of shawls, wrappers, bed covers, or any thing of the kind to keep them warm, call at Mr. Woolley's store and look at some fur robes of domestic manufacture; and if you go cold, after the examination, don't blame us.

The Council of Health is adjourned, to meet at the school house in the 13th Ward, on Saturday, the 17th inst., at 1 o'clock, p. m.

TANNERY.—We understand that Mr. Samuel Mulliner has erected a house, sunk his vats, prepared his heater, and commenced the New Year by putting in some 50 hides. Success to his operations; but Mr. Mulliner is in want of barks. Farmers, will you bring him a few loads, immediately, and get some leather? This is due Mr. Mulliner for his works' sake, and doubly so, because in our fitting and fitting, we lost his advertisement for the first No. of the News. Bring on the Bark, and help yourselves by helping Mr. Mulliner.

GREAT IMPROVEMENT, One of the most wonderful of the Age.—Mechanics, go to work forthwith, and make some good washing machines, that our good housewives can use with ease, wash their clothes in one fourth the time they now do, save one half the soap, and more than half the clothes that are now worn out by rubbing them on the roughest, knottiest, and coarsest piece of board they can possibly hire a mechanic to forge out.

More limes and cottons are worn out on our rough wash boards, than on the backs of the citizens of Utah. The old pounding barrel is a hundred times better than the wash board for common use; but give us some good washing machines.

Flour for News? No—storage for flour at the Tithing Office. Bring us your wheat.

Wood for News? Yes, if delivered soon; also hay.

Butter for News? Yes, always when we can get it, and many more things too numerous to mention.

Cash? Scarce a merchantable article; very little used in our city.

Hides, Skins for the News? Yes, if delivered fresh, uncut, undamaged.

Domestic Correspondence scarce at present. Are our friends sick?

Pottery Superintendent, please report progress.

We have received several local communications too late for this paper.

U. S. Circuit Court was in session last week, and this, in our city; and the Legislature of Utah, assembled on the first Monday of January; but the Governor's message is all we can communicate thereon at present.

Professor Pratt's lecture continues well attended, on Monday evenings, and Professor Watt's lectures on Phonography are continued on Saturday evenings. Now is the time for those who wish to learn the science.

WANTED IMMEDIATELY. A SHOE MAKER, Boot Maker, Tailor and Blacksmith, who never promised a job till next week, and always fulfilled their promise. Liberal wages, and ready pay. Enquire at the Post Office. jan10-5tf

NOTICE TO THE BISHOPS. The brethren of the several wards will hereafter be notified through the "Deseret News," of their respective days for working on the Public Works.

For the week commencing Jan. 12.
Bishop S. Roundy, 16 yard Monday.
" L. D. Young, 18 " do
" P. McCue, 1st " Tuesday.
" A. Everett, 8th " do
" J. C. Kingsbury, 2d " Wednesday.
" W. G. Perkins, 7th " do
" C. Williams, 3d " Thursday.
" J. Preace, 4th " do
" W. Hickenlooper, 6th " do
" S. Taft, 9th " Friday.
" J. L. Heywood, 10 " do
" D. Pettigrew, 17 " Saturday.
" J. Lytle, 11 " do

For the week commencing Jan. 19.
Bishop B. Covey, 12 ward Monday.
" E. Hunter, 13 " Tuesday.
" A. Hoagland, 14 " Wednesday.
" N. V. Jones, 15 " Thursday.
" J. Hendricks, 16 " Friday.
" L. D. Young, 18 " do
" P. McCue, 1st " Saturday.
" A. Everett, 8th " do

P. S. The Brethren will continue to send to the Public Works, all the lumber, Shingles, hewed timber, and fire wood, that they possibly can, which will be credited to them at a liberal price on their titling.
EDW. HUNTER, Presiding Bishop.

TO LET.—A house and lot in 7th Ward, near N. E. corner. Enquire of the Editor. jan10