THE MOON'S MOTIONS.

To the Editor of Haszard's Gazette.

Dear Sir.

The *Islander* of the 16th inst: contains some editorial remarks on the subject of a letter lately addressed to the *London Times*, wherein an opinion is advanced apparently contradictory to notions commonly entertained respecting the Moon's motion on her axis, and is therefore treated by the learned Editor with no little contempt. I may however be allowed to express a doubt if his observations will tend very clearly to illucidate the subject he treats of, if not rather to mistify it in the minds of the uninitiated, of whom I am quite willing, if the Editor pleases, to be set down as one. I cannot conceive on what grounds he assumes that Jelinger Symmonds should be ignorant that the pole of the Earth always points to one particular part of the Firmament, for I think it highly probably he was as well aware of that fact as even the learned editor himself, or any person having the slightest acquaintance with celestial Phenomena. There is a schoolboy saying that "the North star is off afar,"—and it happens to be so very remote that the whole diameter of the Earth's orbit subtends no sensible angle at the star, or is but a dot or point as seen from thence, though measuring about 190 millions of miles iu round numbers, a distance of which the mind can form no adequate cenception. The apparent place of the North star is nevertheless subject to a trifling variation owing to the precession of the Equinoxes, which slightly affects the inclination of the Earth's axis, but if the Editor had named a star of less declination than the Polar one—that is nearer the plane of the Ecliptic or Earth's path in the heavens, I think it would have been better in connexion with his illustration of "a pea, or small ball with a mark on it," which is a mode of illustration often mentioned in elementary works on Astronomy, and is generally described as follows:—Let a candle be placed in the centre of a table, and a ball suspended by a string be moved (not swung) round it, keeping a particular point on the balls surface directed towards a mark outside of its circle of motion—as a remote corner of the room for instance, and each position of the ball's surface will be successively illuminated by the candle. But this affords no illustration of the Moon's motion, nor does it go to confute the theory advanced by Symmonds, nor throw much light upon the subject; any more than the incontrovertable facts, so gravely propounded by the editor, that the Moon's real motion through space is neither in a circle nor an ellipse, and that her path is always concave as seen from the Sun—all which, I take it for granted has been too clearly demonstrated to be contradicted by any one. The Moon's monthly orbit then, is certainly not a circle, *but it may be considered as such in reference to her primary planet the Earth*, and though the learned Editor objects to a carriage wheel, yet I venture to think it may serve the mere purpose of illustration, although like the former one, not strictly correct. Let the carriage be propped up on one side, as for cleaning, and the wheel turned round by the hand,—a spot or nail on the tire or nave will then revolve in circles round the centre of the axle; but let the prop be taken away and the carriage drawn along, over a convex part of the road for example, and the same spot will still revolve in circles round the axle, but, the axle itself being then in motion the actual line or curve desribed by a mark on the tire, will be altogether different from what it was, when the carriage was at rest; and this may afford an appromixate illustration of the Moon's path round the Sun in company with our Earth, though it may not conduct us to a fair consideration of the question now before us.

To come nearer the learned Editor's own mode of illustration, let us form a circle to represent the Moon's orbit, suppose of fine wire which has been first drawn through a perforated glass bead—of the kind used for ornament to represent the Moon herself. Now it is manifest that the bead may be slid quite round the circle, without any motion being given it on its axis, and but one side all the while be presented to the centre of the circle. An independent motion on its verticle axis is here impossible, as the wire passes through the bead at right angles thereto, and any other than a motion perpendicular to her orbit, was never attributed to the Moon on her own axis. Or the whole wire circle may be moved round its centre, carrying the bead along with it, and but one side will necessaily be turned towards the centre as before; nor can it be affirmed in either case that the bead has any motion on its axis, independent of its orbitual circuit. Even the balls of a common Orrery when turned round by a winch, present but one side to the centre of the instrument, unless there is a secondary motion given them on their axes, by some complex machinery.

To pursue the inquiry a little further I may be allowed to suppose a particular spot on the Moon's surface, a high mountain for instance, to be composed of loadstone, adamant, or any substance, that owing to magnetism, gravity, or some hitherto unexplained law, is kept constantly turned towards the Earth, the centre of attraction and also nearly about the centre of motion, to the Moon in her monthly revolutions. In that case her only motion is her orbitual one, as maintaned by Symonds, for independent of it, she has no other. To render this more familiar let a ball of wood or ivory be attached to one end of a string, the other eud being firmly held by the hand, and the ball swung round in circles, the hand of course being the centre of motion. It is evident that the side of the ball from which the string leads, must all the while keep inwards towards the hand; and can it be maintained, in the face of this, that the ball has two motions? that is a motion on its own axis, apart from the circular impetus given it by the hand—I think not, and this is no more than is asserted by Symons in reference to the Moon.

If the Moon revolved round the Earth as the ball is moved round the candle in the illustration first described—that is with a mark on one side directed to a distant object outside the orbit—in that case remote bodies, such as fixed stars, would have no apparent motion, as seen from the moon; while the Earth would appear to move once round her in a lunation, veiwed from her Equatorial or Polar regions if she can be said to have such. But if her motion be like that of a ball swung round by a string, the Earth alone must appear stationary from the Moon's surface, while all bodies outside her orbit seem to make monthly revolutions, the Sun and Planets varying from the fixed stars only as to time; and it may be as well to mention that the inferior planets have not here, been taken into consideration.

If what has been advanced by Jelinger Symons is unpopular, that does not prove it false. Even his name, which sounds odd, may carry some prejudice along with it, as Amos Cottle's must have done to Lord Byron; but had the theory been propounded by Sir John Herschel, or Professor Airy, it might have met with a gentler reception in the scientific world. Scrupulous "Fellows of the Royal Society," would very possibly have bowed their heads, in obsequious deference to the prestige of a name, and the truth of the theory would never have been questioned in the columns of the *Islander*. We all remember having heard the question, as to the weight of a fish, submitted to the aforesaid learned Body by a Monarch of facetious memory; but these are doubtless "more enlightened times!"

Symons' illustration is extremely simple, but that may be *one* objection to it: for how indeed could it happen that so plain a principle in Mechanics was never before applied, in explanation of the Moon's apparent rotation on her axis! New theories, though obvious to the understanding, are sometimes unaccountably opposed, even by persons of education, as the change in the Calendar, though the result of accurate research founded on a long series of Astronomical observations, was carried through Parliament with difficulty, being directly at variance with the prejudices of a large part of the Nation; and Galileo was imprisoned for life, simply for maintaining his honest conviction that the earth revolved round the Sun! Fortunately for "Her Majesty's Inspector of Schools," his lot has fallen in a free land, and his "Vineyard" in more pleasant places:—otherwise, judging by the tone and spirit of what has been advanced by Collegians to contradict him, he might, ere this, be on his way to some penal colony to atone for his grave offence; or perhaps be doomed to earn his bread amidst the blessings of Responsible Government, as now administered in Prince Edward Island: and the Lord have mercy on him, if exposed to the surveillance of a free press, as "Inspector of Schools" under the new Education Act!

Feeling that I have trespassed at too great lenght on your space, I must apologize for requesting permission to conclude with a short story:—An English nobleman when in Paris, laid a considerable wager with some French gentlemen, that he would ride his horse a given distance in a given space of time. While the wager was pending the French academicians held an extraordinary meeting, where they made most elaborate calculations, proving to demonstration that, from the opposition the air would make to the bodies of the man and horse, the feat was absolutely impossible. Their calculations were read in almost every Court in Europe, and regarded as the highest effort of human genius, but notwithstanding all this, the Englishman rode his horse, and also *won his wager*.

I remain, dear Sir,

Your obedient servant,

J. B.

Observation Cove, May 27th, 1856.

John Bunyan's Flute.—The fluit with which John Bunyan beguiled the tediousness of his captive hours, is now in the possession of Mr. Howells, tailor, Gainsborough. In appearance it does not look unlike the leg of a stool—out of which it is said that Bunyan, while in prison, manufactured it When the turnkey, attracted by the sound of music, entered his cell to ascertain, if possible, the cause of the harmony, the flute was replaced in the stool, and by this means detection was avoided.—Lincolnshire Times.

"A codfish breakfast and an India rubber coat will keep a man *dry* all day!"

THE GREAT ISSUE IN THE NEXT PRESIDENTIAL ELECTION.—THE SKELETON IN THE AMERICAN CLOSET.

We are on the eve of a presidential election. We have already passed seventeen of these Olympiads; but the one now approaching outstrips in importance all its predecessors except the first. That proclaimed Washington the constitutional chief of a cluster of struggling but victorious colonies: this is to decide the fate of the African race, and perhaps our own as a republic. My meaning may not be understood by Europeans without an explanation.

At all periods we, like the men of other nations, have ranged ourselves under two or more great parties. At all times, some domestic or foreign question has afforded cause, occasion, or pretext for such division. The existence of African slavery in the midst of so free and enlightened a State has always been "a stumbling stone" to other nations who have read our annuals or surveyed our progress. And conceal or deny the fact as we may, this "institution" has made us all our trouble from the beginning. It interposed the most serious barrier to our confederation, after our independence had been won. It has mixed itself up with all public questions and debates ever since. It has coloured all our home and foreign policy. It has made and unmade tariffs of duties. It has declared war and made peace. It has raised up demagogues and cast down statesmen. Every great man, the republic has had or made, has writhed under the pressure of this "question," like Laocoon in the folds of the serpent. It has met us at every turn—in public and in private life. It has been the skeleton in the closet of our republic.

It is so yet. The great question now is, what shall we do with it. Skeletons are usually kept under lock and key. Every body knows that surgeons keep these ugly things—but it is equally certain, that they are not intended for general inspection. In our case, this skeleton has opened the door himself, and not being satisfied with this partial exposure of himself, he has stalked out into the parlor with full day-light blazing all round his hideous bones. But even this did not satisfy him. He stood before us in the dining room—he penetrated the library—he walked into the kitchen—he went up to the garret—he sat down at the table—he eat our breakfast, our dinner, our supper—he took possession of the house—the whole house—and now he threatens to turn us out of doors. This is exactly the state and condition of the siavery question is this republic to-day.

Slavery has asked for too much, and now it will lose all. People do not like to see skeletons act in this rude way. They ought to behave better. If they do not, they should be made. If they will not stay in closets, they must be put out of doors entirely, and when they are turned into the streets the veriest boys will throw stones at them. This great skeleton (or perhaps, since it is a living thing, I had better call it this tape worm of our republic,) has behaved quite badly of late. It had fifteen republican states to occupy. Any chirurgeon, and all common folk, would declare this ample territory for a monster,—how much ampler for a skeleton? Since 1821—when a solemn act of Congress declared that slavery should never extend beyond the southern line of Missouri It has been universally understood, that the very utmost the south could claim was the intension of slavery over territory lying south of 89 deg. 30 min. Hence she extended. We bought Lousiana from France and Florida from Spain. These made three southern states. Then we stole Texas from Mexico, and added to the Union its broadest state. Next, the tape-worm crossed the Rio Grande, and swallowed an area of land several times larger than France, from which we have carved out empires, known on the map as California, New Mexico, &c. No thanks to the tape-worm, that he could not extract the vitality from these states, and infuse into them the deadly virus of African bondage. The effort was indeed made, and it was no baby-play. But the men who emigrated to those new regions knew how paralysing a thing slavery is, and when they went to their ballot-boxes, they put in free-votes, and each election made a free state.

Thus defeated in its latter attempts, slavery turned "at bay," like a hunted stag. Its tactics were changed. It could gain little or nothing in the south. It made a clutch at Cuba: but when it became known that Cuba, if seized, would be declared a free state, filibusterism in that direction died out, and nothing was left there.

Then came another, a last effort, and it has made a crisis in the republic. The skeleton looked north, towards free soil—towards the broad virgin land, ten times broader than England ruled for a thousand; years and the tape-worm said, "This will I devour." To get it, the Missouri line must be abolished. General Pierce joined in this villanous combination, under a pledge of reelection from the South—a pledge the south is just ready to break at Cincinnati. The work was done. The spirit of the free north was wounded, for the north loved the south; the spirit of the free north was roused; it became indignant, and it declared, that slavery should go no further. It protested against the iniquity; it complained of the wrong, but without avail. It then sent its free and liberty-loving men to Kansas, to live on its soil, to make their homes, and to secure those homes for ever from the blighting curse of African slavery.

The south became alarmed, and its partisans and champions started a crusade for the extermination of free institutions in Kansas—white and black, both races, all the same. If the slaveholder could not be free to lash his negro there to an ungrateful and killing task, the free Anglo-Saxon man should not be free to go to his ballot-box and vote for liberty. Hence the origin of border-ruffianism—a just name for a most black and despicable fact. The free state men were driven from the polls; they were shot down like mad dogs; they had no rifles nor revolvers.

This could not last. These arms were not sent to them—they were carried—and carried by comrades who knew how to use them. Betimes the free state men of Kansas were formidable, because they could kill every border-ruffian who crossed the river to molest them. The current began to run the other way, and it is now a foregone conclusion, that Kansas will be a free state. So the skeleton must either go back to his narrow quarters in the closet, or the boys (fifteen millions) will throw stones at it.

This will doubtless be the great issue in the next presidential election. Already the democratic party has planted itself on the platform of slavery propagandism, and Mr. Buchanan has endorsed it, with the hope of reaching the presidency. All other candidates have followed suit throughout the democratic ranks, and it is now certain that the National Nominating Democratic Convention, which meets in Cincinnati in six weeks, will put up a man who holds to this creed. With him they expect to carry every southern state, and possibly they may.—But this will not be enough. They must get 27 electoral votes from the north (in addition to the whole south) in order to succeed, At the same time, the Anti-Kansas party will be in the field, in the same month of June, with their candidate; and, from present signs, it is likely, that they will form a coliation or combination wtih the Know-nothings (a party stronger than their own) and both will thus unite on a common candidate. In this event, they may fairly hope for success. If, therefore, only two candidates enter the field, the great issue, which from the beginning of the government has always been inevitable, will come. We shall resolve ourselves into a pro-slavery and an anti-slavery party, the whole country voting at once on this question. Any man can guess the final result, when this point shall have been reached. The skeleton had better stayed in the closet.

To show how far Mr. Pierce, the President, has gone down in public esteem, it is only necessary to look at the late election in Connecticut, and in New Hampshire, his native state. He and his party have been beaten there, and in spite of the most persevering exertions, and the profuses expenditure of money. The President sent several of his most eloquent champions from the south to advocate his cause in those states. But they came back no longer Pierce men themselves. They do not hesitate to say so. This fact, which has now been known some days, has put an end to Mr. Pierce's prospects of renomination, if indeed any remained to him. For a while, it seemed probable, that Mr. Buchanan's chances were the best; but such is no longer the common opinion. Probably some man who does not expect the honour will receive it. But if the coalition between the Free State, and the Know-nothing parties takes place, it is a matter of little or no importance whom the Democrats nominate—their man will be beaten. In the meantime, Mr. Fillmote, it is thought, will decline the nomination which he received from a section of the American party, since there does not appear to be the remotest chance of his election.—*New York Paper*.

We take the following excellent anecdote from the *Knickerbocker* for May. It is told by a gentleman of the old school. Said he:—

"When I was a merchant in William street, some forty years ago, there was a young fellow who failed in business rather unnecessirally, as we thought, and James II.——and some others, including myself, his creditors had a meeting to overlook his accounts. We took up his ledger, and the account of A——was turned to. Well, $500 due. Was this good? Afraid it was all bad. B's. account of $300. How about this? Might get it, but doubtful. A third, very similar. A fourth ditto, and so on, showing a bad state of things, and recklessness in dealing with irresponsible men. However the accounts were none large.

Presently we came to the account of Messrs. Carco & Cohi. Well, who were they? Their account was some $3000, and, if good, would make something of a dividend. Their names were unknown to us. Were they foreigners? After some preliminaries, the debtor said: "To tell the truth, I am ashamed to confess it, but I have spent this amount frolicking with certain ladies, whose society I had better have left alone and this account stands for 'Carnation Company and Coach Hire.' How the old gentleman laughed, as he told me this. We were getting to the end of the route, and there was no time to say more. 'But,' said my venerable friend, 'I am satisfied that this firm of Carco & Cohi figures as largely in the books of our young bankrupts now-a-days, as it did forty years ago.'

"'Carco & Cohi,' we suspect, appear in most people's accounts, either as 'charity' or 'sundries.'"