#### TO A ROBIN.

O robin on the ivy bough, That, bare of buds and leaves, is now Like life-stripped mortal, tell me how Thou still can'ts sing, When other birds have sought the Sun On flecting wing?

When thou art free to fly the skies Of tropic lands, what is it ties Thy wee heart here, where Summer die-To live again? Dost thou not wistful long to rise On other ken?

What life be thine that can outlast. The breath of our chill winter blast, And be regaled on begged repast From kindly hands?
Would life be dull if it were cast In sunnier lands?

It would be thought that thou'd prefer To warble forth thy carols where The locust, like the juniper, Blooms all the year; But thou do tuneful gifts confer On mortals here.

Thou might on leaf-clad tendrils swing And coyly plune thy pretty wing And coyly plune thy pretty wing And all thy wealth of music sing In climate, where No wintry snows e'er hide the Spring Or chill the air.

Thou might have flown where thou could'st drink Thou much that could the most brink of some clear spring, where but to think of life is life, And where no lily's head would sink In frosty strife.

Thou might have flown where gliding streams Cast back aslant the noon-day beams. And where the weeping willow seems. To shed its tears.

Where 'nenth its shade some mortal dreams of by-gone years.

Then, robin, may thy warblings meet With welcome kind and morsels sweet. To tempt thy fruitful throat to treat our longing cars.
To sounds whose mem'ries we shall greet In coming years.

Brantford, Out.

C. M. R.

### THE WEAKNESSES OF STRENGTH

Is it not commonly said that we all have a mean point, a weak point, and a mad one in our character, and that the best of us are only better than the bad, and not absolutely good and positively noble all through ! That famous vale! de chambre who lurks in the ante-room of every life-he to whom the most illustrious master is never a hero-could say strange things of everyone, if he would; and, were entirely faithful biographies to be written, the world which believes in homogeniety of qualities, would read with amazement of meannesses and weaknesses which make that which looks like pure Pentelicon marble, without a flaw or a stain, nothing better than a mass of "breedia," where porphyry jostles sandstone and lapis lazuli is side by side with granite, and alabaster and onyx make a smooth surface with seaside pebbles and fossilised clay mud.

Who is brave all through? who generous? who faithful? who strong! No one. The man who will march up to the cannon's mouth with a cheer, and lead the forlorn hope with a song, will not face his wife when in a temper will not refuse his friend a loan which he ought not to afford-will not dismiss a poor devil of a clerk whose bread is in his work, and whose work is not worth his bread. He has comage enough to give away his own life for the sake of duty or a cause; but he has not courage enough to undergo the poisoned shafts of an angry woman's tongue! not courage enough to see his friend go down to destruction when by his own loss he can withhold him; nor yet has he courage enough to consign an inefficient servant to the certain starvation which awaits him were he to be turned out of this employ, untit as he is for this or any other. That is his weakness his form of cowardice, that flaw in material which makes the marble only "pudding stone" after all! Or take him who has moral courage enough to do that which is wisest, and therefore that which is right, no matter who has to suffer :- to him it is the principle that But he would not walk past that house which is said to be haunted, unless, indeed, on the way of his duty, and he had to show his loyalty by his courage; and he trembles like an aspen-leaf when he thinks he hears the spirits moving the furniture about his rooms and sending him other-world congratulations by means of thumps and raps. Brave to martyrdom morally, physically he is timid as a hare; and, braced to unbending steel on the side of duty, he is all to pieces on that of auperstition. He, too, is an instance of the weakness of strength and the odd amalgam that jostling qualities create in the

You are generous and open-handed to a fault. You will never live to be-not rich; that is not to be thought of !-but even comfortably off, because of your ridiculous habit of giving to all who want and of spending your substance in making others happy. And yet—your private and rectitude. But show him the tuture sumerallet sees you heard all the bits of string and ings of his wife and children; paint the anguish was come to you as if of the mother whose offspring have to be sacrified in the life-long disadall who want and of spending your substance in they were gold and silver; and you will break your nails, and waste half an hour of your valuable time, in trying to undo the knots which

secure a parcel of books rather than cut the Gordian difficulty and sacrifice a yard and a half of twine. With reams of paper in your library drawers, you save the unwritten half sheets of the notes sent by your friends—even the blank faces of the written halves-for memoranda and rough copy. If you were asked, you would give away half a ream out of your stock without a second thought; but for yourself you put yourself to the inconvenience of keeping a lot of misfitting half-sheets sprawling about your table, and to the comparative annoyance of writing your first thoughts on unequal lengths, rather than take of those stores which at the best represent only a few shillings saved by your thrift. But that is your little meanness, your little bit of stinginess, in the midst of a life of rather exceptional "giving."

Another instance of the same kind of odd stinginess, set like a lump of clay in the midst of precious marbles, was to be found in the "dislike to see wine wasted" characteristic of a certain lady of good means and generous habits once known to us. She used to give dinner parties where everything was en regle according to the fashion of the day, but the instant the gentleman had left the dining-room she used to slip downstairs and empty into the decanters all the heel-taps remaining in the glasses; and what was the worst part of the transaction, she emptied them indiscriminately-port, sherry, and claret all "toomed out-into the first decanter that came handy, without the smallest idea that she was committing a crime against her future guests which could not be too severely condemned.

Many such strange veins of meanness traversing a nature of instinctive generosity may be found in life by those who look for them; but they are chiefly found in public benefactors the people who make large donations, accom-panied by a blaze of trumpets in the public press, and who thus build their own monuments during their lifetime, and enjoy the commenda-tions usually reserved for the dead, who cannot hear them. They are so accustomed to have all they do in the way of generosity proclaimed to the public, and praised by the public, that they think it waste of time and force to do good in secret, no man knowing. Hence, they not only refuse to give of their substance, save in this semi-royal and official way, but they even condescend to meannesses which no one of fewer pretensions and truer generosity would dream of committing. Instances of this will occur to all of our readers who know anything of the private lives of some of our greatest public benefactors. We need not put the dots to the i's; common report and general knowledge will supply them; but the fact is a curious one in human nature, and to be verified at all four corners.

A notably resolute, determined, and self-willed character offers the very ideal of strength strength, indeed, running into hardness and self-will trenching on brutality. Where is his price! Not in money; not in fear; nor yet in effection; nor yet in social ambition. He has pith enough to withstand all these. Offer him place and power, shower on him caresses or threaten him with penalties, and he is inexorable. You might as well seek to soften granite by dropping on it evening dew. But, flatter him judiciously, and you have found the weak place in his armour and hold him in your hand. Agree with him in the beginning. Tell him that his views are entirely right, his proposed action entirely wise-just, in fact, what you would expect from him. He is wisely stern, righteously irate; his firmness is courage, his opposition faithful testifying. Go with him all the way; and then gently, tenderly, tentatively lead him to look at the other side. Put it to him as a mere hypothesis which it is only common sense to examine. Of course there is nothing in it-but it is a hypothesis like any other, and worth examination. Then, clear the ground bit by bit, inch by inch, always leading him along with you by crafty appeals to his reasonableness and power of wide judgment, and you have binded him at last where you would that he should stand. But this kind of thing is, of all human manipulations, the most difficult and delicate, and needs the largest amount of secoir faire and tact. It is the one weakness of the strong man. He cannot resist the flattery which appeals to his better judgment in such nice gradations of agreement and praise, for the sake of argument passing on to another view which, by discussion, wise and good as he is-cannot fail to see the value. This is his hook, line and net; herewith he is caught, played, and landed.

His brother's weak point may be found in his affections. He cannot resist anything but the well-being to be sacrificed, the damage to be done to his dearest, should be persevere in the way which he has marked out for himself, and made clear to his conscience is the way of duty. No flattery touches him, however skilfully administered; no social ambition for himself has any power. Offer him the Garter, and he would not stoop to look at the blue riband, which other men would give half their souls to win; offer him wealth, and fame, and all the tleshpots of Egypt, filled to the brim and running over, and he would prefer his Spartan black broth and blacker bread, rather than swerve a hair's breath from the line of probity

have to fight for themselves in life, no one aiding — and he is done for. He will bow his knee to Baal rather than bring this trouble on those dear heads the care of which he persuades himself is his chief duty; and he forsakes his flag and betrays his cause rather than that his sons and daughters should go into the desert of social rain with him. Judge gently of him even when he stands confessed the renegate, who could not bear that strain. His love was the line of cleav age and his constancy broke at that point.

If we have weak points and mean points, what can be said of the mad ones! Is it not one of the rarest things in the world to find a thorough ly healthy brain in every particular? The intellect may be clear and sharp, but does there not lurk in some secret corner of almost all of us an unprovable superstition?—an excess of faith over knowledge! All the people who believe in the ubiquity and universal social and official infiltration of the Jesuits are not fit for the lunatic asylum; nor are all those who be-lieve in the intentional wickedness of Governments; nor those who see everywhere the traces of secret poisoning. Nor are those who hol-that we are the lost Ten Tribes necessarily mad nor those who accept as proved and patent the prophesies said to be recorded in the stones of the Great Pyramid. Yet when these are discussed and ventilated by those of us who are not in the same stream of thought, they seem to be the veriest moonshine ever talked; and the minds which hold them seem to us as if they must necessarily be, so far, insane. And yet these justify their faith to themselves, and make what is madness to us science to themselves. Do we not all know people, with solid brains enough, who yet believe in luck, in dreams, in foreshedowing of future events by omens and presentiments! Which of us is free from every vestige of superstition !-from the thirteenth at table to the howling of a dog beneath the windows of the sick !- from beliefs in ghosts, in spirit-rapping, in fortune-telling, to the spilling of salt and the beginning of a journey on a Friday! Most of us own to some little thread of what is substantially madness, in that it is a belief only and not a fact--a superstition and not part of a science capable of proof and demonstrable by analysis. So it is, and the weaknesses of strength are to be found everywhere, like the worm-casts in the garden, and slate mixed up with agate in the slab of varie gated breesia.

## HORSES UNDERGROUND.

It is not proposed here to speak of that style of geological horse which balks the hopes of expectant stockholders so often by coming into the ore body so inconveniently, but of the pa-tient animals employed underground for hauling cars, etc. A short time since a gentleman named Mr. C. Hunting, spoke before the North of England Institute of Mining Engineers on colliery horses, and gave some facts concerning their feeding and management which are of in terest. He stated that two things are neces sary to produce condition in horses—hard work and high feeding. The former is never lacking in collieries, and the latter can easily be attained if cost be no object. A sufficiency of oats and hay, with plenty of work, will produce condition, but at a most extravagant cost; but high feeding can be economically attained, and horses may be kept in the highest condition as a cost very much below what is usually incurred for animals doing light work. There are three conditions which render high feeding economical. 1, The selection of the cheapest but best food: 2, giving that food in a form most favourable to digestion; 3, the prevention of waste. The writer gave an analysis of the different qualities of food usually given to horses, and ex-plained that several of these articles of provender possess very different qualifications; some are laxative, and some are constipative; but a judicious mixture can be made which will produce a most valuable food. The object of the larger portion of the paper is confined to show-ing what the mixture should be, and how it should be changed to suit the ever-varying prices of each of its ingredients without losing its nutritive qualities. Outs alone will not keep hard working horses in condition, nor can any single grain preserve both health and condition. He showed that musty or kiln-driel oats are danhas to be vindicated, not the person who has passing on to another view which, by discussion, showed that musty or kiln-drie loats are dantather's body were it in the way of his duty. Then the former, and of which he therefore—so year old, and their natural weight should be at least 40 lbs. per bushel. Maize is a most valuable article of provender for hard working horses. Cutting and bruising the hay are advocated: and the importance of the frequency and regularity of meals is shown. The writer quoted figures showing that at the principal collieries, etc., where his method of feeding is carried out, there was a saving of £41,114 13s. 4d. in the year 1881; the corporation of Newcastle saved £1,252 15s. in 1881. He also gave a statement of the saving effected over a number of years, varying from £117,455 saved in 31 years at South Hetton Colliery down to £4,227 saved by the corportion of Newcastle in four years; the total saving for 17 establishments amounting to £574,285. The saving in the cost of feeding by the writer's method is not by any means the only advantage or the whole economy effected; for it is claimed that horses do more work per annum, are in better condition, and last considerably longer than those fed on any other plan. In the course of the discussion which followed the reading of the paper, Mr. Hunting condemned the use of condiments and spices

#### SCIENCE IN SOAP BUBBLES.

The soap bubble has now come within the reach of science. By means of those gauzy globes many beautiful and interesting experiments have been made at the Franklin Institute during a lecture by Mr. D. S. Holman, actuary of the Institute, on "Some effects of Light and Sound." The instruments used were the Holman lantern microscope and the same gentleman's later invention, the phoneidoscope, which may be freely translated into "seeing sound." The former instrument consists of a metal box containing an oxy-hydrogen light, which is thrown at any angle by condensing lenses upon the object to be magnified. This light is reflected off at another angle through the magnifying lens on a screen, where the object is displayed greatly magnified.

The phoneidoscope consists of a thin metal tube, on one end of which is a thin cap in which a hole one inch square is cut, and at the other end is a large mouthpiece such as as used on a speaking tube. The soap-bubble preparation is composed of cleate of soda and glycerine, and from it bubbles two feet in diameter and of exceeding brilliancy can be blown. Some of these have been kept 48 hours under glass. The lecturer dipped the small end of the phoneidoscope into a saucer filled with this preparation, which left a film across the square opening. The cone of light from the lantern was then thrown upon the film and reflected upon a screen through the magnifying lens making a figure about two

feet square.

The effect was beautiful. At first nothing but a gray surface was seen, then gleams of colour appeared, and in a moment the whole square was a mass of dazzling brilliancy which would have put to shame any kaleidoscope ever made. Every instant the beautiful picture changed; now a wonderful design in reds and yellows, looking like a tea store chromo of an Italian sunset; then shifting to a swarm of pracocks' tails, or a pantomime transformation scene struck by lightning and as suddenly changing to a sombre view in blue and purple, or a rainbow dancing a waltz. After showing several of these pictures, the lecturer proceeded to show the effects of sound upon the soapbubble. A couplet was sung into a phonograph, the mouthpiece of which was placed against the monthpiece of the phoneidoscope, and the crank was turned. As the sound issued forth, a curious effect was produced upon the picture. Geometrical figures in black appeared upon it, small and distinct when the notes were high, large and less clearly cut when the notes were low. Around and among the black figures whirled the ever changing colours, red, blue, green, yellow, in all their varying shades, melting into one another too quickly for their blending to be followed by the eye. Human voices also sang to the soap-bubble, and with equally curious results. It is proposed to exhibit this experiment on a very large scale as soon as the new lantern microscope, now being made for the institution, is finished.

# "FEDORA" AND SARDOF.

Sarah Bernhardt has written to M. Meyer, of the tiaulois, a long letter about "Fedora." She says that it is the first time she has ever interpreted anything of Sardou's, for Perrin had objected to her playing in "Daniel Rochat." When she at length returned to Paris after her wanderings over the globe, Sardon was ready with his scenario. At length she had a tole, for until then in all the pieces that she had created she had only episodical parts. She gives some interesting details regarding the collaboration of artist and author. Dumas reads coldly and leaves all details on the stage to the manager. Feuillet is nervous and sensitive. Victor Hugo reads swiftly and ventures his suggestions timidly. Sardou, on the other hand, begins with small matters and as the rehearsals proceed extends his arrangements. He is not peremptory, as is reported, but listens gladly to the suggestions of the company. He is very patient, and has an eye for everything. He sits on the furniture, tries the doors, "he weeps, laughs; in short, feels all the roles." He comes to the theatre muttled in furs, he complains of cold draughts, he takes off and puts on his overceat a dozen times; at three o'clock he and the actors take some refreshment and drink port

"Fedora," according to Mme. Bernhardt, is a second creation of woman. Fedora is all women in one. She is the incarnation of all feminine charms and defects -- a fallen angel with white wings. The play itself she considers one of the most striking dramas that has been for years presented to the public.

SELLIER.—The famous tenor, before he was liscovered, was in a bad plight one day. Finding no work in Paris, he went to Havre. There he met an old friend employed in the Transatlantic Company. Sellier asked for work. His friend suggested the position of undercook on board the Saint-Laurent. Sellier, who is a capital cook, asked for the place and got it. His pay was \$10 a week. But the tenor cook increased his funds by singing in the evening when his work was over, and the passengers passed the hat around for him. Every cent he gained he sent to his mother. He has been in New York Bay sixteen times and never set foot on land. He says "Je connuctis mon Ameri-