The Message of the New Year.

I asked the New Year for some motto sweet,
Some rule of life with which to guide my feet.
I asked and paused; he answered, soft and low:
"God's will to know."

"Will knowledge, then, suffice, New Year, I cried,
And ere the question into silence died
The answer came: "Nay; but remember, too,
God's will to do."

Once more I asked: "Is there no more to tell?"
And once again the answer softly fell;
"Yes; this one thing, all other things above,
God's will to love."

—*Selected.*

Ben Shalom.

Ben Shalom read one night from out a roll:
"Vessel of honor! consecrate! ('O soul!')
Prepared for every worthy work! and meet
For the Master's use!"
And finger on scroll,
He prayed aloud: "Make me His silvern bowl!"
Lo! Emeth at his side, God's angel fleet
"Yea, in His mansion here; and when unfold
The everlasting doors, chalice of gold
Brimming with His great love—
Heaven's vintage sweet!"

THEODORE H. RAND.

—*Canadian Magazine for February.*

The teacher who merely glances through an educational paper for devices that she can use this afternoon, to-morrow, or next week, does not know what education is.—*N. Y. School Journal.*

When it is noted that a teacher has broken down in health, it is concluded that it is over-work of the brain. This is true, probably, but it is not over-intellectual-work. That is, it is not over-thinking, over-study, but over-anxiety, over-emotion. "It is not intellectual work that injures the brain," the London *Hospital* says, "but emotional excitement. Most men can stand the severest thought and study of which their brains are capable, and be none the worse for it, for neither thought nor study interferes with the recuperative influence of sleep. It is ambition, anxiety, and disappointment, the hopes and fears, the loves and hates of our lives, that wear out our nervous system and endanger the balance of the brain."—*School Journal.*

Mr. Acland went to the root of the matter when he said that the great object before them was not merely knowledge, but character. How children learn is even more important than what they learn. One fact acquired in such a way as to develop the faculties is more profitable than the words of ten facts got by rote, just as one grain thrown into the earth is more productive than ten put into a bag. Mr. Acland, of course, knows, but it is necessary to remind some people that the function of a school is not merely the formation of character, and to remind others that it is not merely the imparting of knowledge. A school does not deserve the name unless it forms character by imparting knowledge. The fact that it makes its pupils high-minded cannot be considered as sufficient excuse if it should happen to leave them empty-minded.—*London Journal of Education.*

QUESTION DEPARTMENT.

[From A. L. Matheson, Arcadia, Yarmouth.]

1. Why does a long screw-driver give more power than a shorter one, though of the same weight?
2. By what formula may the area of each zone of the earth be found?
3. A ship moves forward twenty-four feet while a ball is falling from the mast head to the deck, a distance of 64 feet. How far did the ball move?
4. Describe a system of pulleys with separate cords attached to the weight.
5. Multiply £1 7s. 6d. by the value represented by £1 7s. 6d., first reducing both to pence.
6. What are *recurring decimals?* Give a definition.

ANSWERS.

1. The power of a screw-driver depends upon the relative magnitudes of the diameter of the handle and the diameter of the screw. Length of handle may, in some instances, give a better position to the operator. Besides the power applied to the screw is somewhat more evenly distributed,—the twisting, or torsion, of the long handle acting as a balance wheel does in machinery.

2. Multiply the circumference of the earth by the height of the zone, and the product will be the area.

3. The path described by the falling ball will be a parabolic line, of which the abscis will be 64 feet and the ordinate 24 feet. Then the distance traversed by the ball will be the square root of $24^2+\frac{1}{3}\times64^2=$ 77·7 feet.

4. Let there exist a system of three such pulleys. The higher pulley will be fixed. A string tied at one end to the weight passes over No. 1 and is tied at the other end to pulley No. 2, which is movable and lower than No. 1. A second string tied at one end to the weight will pass over pulley No. 2 and be tied at the other end to pulley No. 3, which is also movable and lower than No. 2. A third string tied at one end to the weight will pass over the third pulley and at the other end of the string the power will be applied. Neglecting the weights of the pulleys, $W=P(2^n-1)$. For figure, see Wormell's Natural Philosophy, page 70.