

with a motion vastly more quiet and uniform, we have, in the same interval, been carried along with the earth in its orbit more than half a million of miles. In the case of the steamship, however perfect the machinery may be, we still, in our waking hours at least, are made sensible of the action of the forces by which the motion is maintained,—as the roaring of the fire, the beating of the piston, and the dashing of the paddle-wheels; but in the more perfect machinery which carries the earth forward on its grander voyage, no sound is heard, nor the least intimation afforded of the stupendous forces by which this motion is achieved.

The distance of the sun from the earth is about ninety-five millions of miles. No human mind can comprehend fully what this vast distant means. But we may form some conception of it by such an illustration as this: A ship may leave Liverpool and cross the Atlantic to New York after twenty days' steady sail; but it would take that ship, moving constantly at the rate of ten miles an hour, more than a thousand years to reach the sun.

And yet, at this vast distance, the sun, by the power of, attraction, serves as the great regulator of the planetary motions, bending them continually from the straight line in which they tend to move, and compelling them to circulate round him, each at nearly a uniform distance, and all in perfect harmony. We shall afterwards explain the manner in which the *gravity* of the sun acts in controlling the planetary motions. For the present, let us content ourselves with reflecting upon the wonderful force which the sun must put forth to bend out of their courses into circular orbits such a number of planets some of them more than a thousand times larger than the earth. Were a ship of war under full sail, we can easily imagine what a force it would require to turn her from her course by a rope attached to her bow—especially were it required that the force should remain stationary, and the ship be so held as to be made to go round the force as round a centre.

Somewhat similar to this, but on a much grander scale, is the action which is exerted on the earth in its journey

round the sun. By an invincible influence, which we call *gravitation*, the sun turns all the planets out of their course, and bends them into a circular orbit round himself, though they are all many millions of times more ponderous than the ship, and are moving many thousands of times more swiftly.

PROFESSOR OLMSTEAD.

#### QUESTIONS ON IRISH LITERATURE.

1. Who was Henry Brooke? Where was he born, and what age did he die?
2. Which is his best known work? What compliment did the Rev. Charles Kingsley pay this work?
3. Which of Brooke's plays did the government refuse to licence, and why?
4. Who was Sir Phillip Francis? What work has immortalized his name?
5. With what celebrated character did he once cross swords in India?
6. Name the Irish dramatists of repute, contemporary with Brooke, Francis, &c.
7. Who wrote the Comedy of "False Delicacy," and what was its object?

NEVER GO BACK.—What you attempt do with all your strength. Determination is omnipotent. If the prospect be somewhat darkened, put the fire of resolution to your soul, and kindle a flame that nothing but death can extinguish.

WOMEN'S BURDENS.—Women are burdened with fealty, faith, reverence more than they know what to do with they stand like a hedge of sweet peas throwing out fluttering tendrils everywhere for something high and strong to climb up by, and when they find it, be it ever so rough in the bark, they catch upon it. And instances are not wanting of those who have turned away from the flattery of admirers to prostrate themselves at the feet of a genuine hero, who never wooed them except by heroic deeds and the rhetoric of a noble life.