

It was not for money that Luther Burbank dedicated his life to plant breeding. It would, by the way, have been very easy for him to become a man of large fortune. All that was necessary to do was simply to take a few of his more important commercial creations—even one would have been sufficient—and develop them himself for the market.

The plan he has followed has been to sell the new creations as they have come from his hand to some dealer, without restriction, so that at the earliest possible moment the new fruit or flower could become cheap, and get into the hands of the general public, and then take the money received from the sale and put it back into the new experiments. It is not difficult to see that this was a costly practice, but its unselfishness has borne splendid fruit. Why does he do it?

In the first place, he does it because he cannot help it. He has been forced into his line of life by the same resistless power that makes a great painter, a great poet or a great statesman. He cannot choose from one point of view, for he is under what might be called a divine compulsion. Back of this in Luther Burbank's soul is an intense love for Nature, coupled with the deepest sympathy for her when for one reason or another she has not been able to come up to her highest possibilities.

On top of it all is a profound love for the immensely fascinating work of transforming Nature, and following unerringly her lead, while at the same time leading her, he has brought out undreamed-of excellences which he has given freely to his fellows. Had this man set out merely to make money, think of the fortune he might have built up! His "Burbank potato" alone could have netted him a fortune and this is but a drop in the bucket of his astounding achievements.

Willie Thomson—Lord Kelvin

On the opposite page will be found the best portrait that was ever obtained of the late Lord Kelvin, and having looked at close range into the eyes of the living man, we can say it is a "speaking likeness" of that splendid genius who, withal, was one of the most simple minded trustful souls that ever trod the earth—another "dreamer," but what did he dream? Well he is best known to the general public through his success in laying the submarine cable across the Atlantic which was accomplished in July, 1866. The "man in the street" may have some hazy conception of the importance to the world of this brilliant achievement, which has rendered the fan-

tastic boast of Arcl to "put a girdle round about the earth in forty minutes" a realized fact so far as the world's news is concerned, and has done more to cement the brotherhood of man and advance the solidarity of the race than all the philosophy ever written.

But only specialists can value aright the infinite care and talent necessary to invent and produce the beautifully delicate instruments which made the achievement possible. No man of genius ever combined in so great a degree as William Thomson (subsequently honored with knighthood and afterwards raised to the peerage as Lord Kelvin) the eye of scientific vision with the practical turn which at once enlisted every new discovery in the service of humanity.

the greatest scientist since Newton's day. And amid all the "honors" and plaudits that came to him, he remained the same humble, devout man as in the days when his morning prayer in the class room of Glasgow University reminded his students of Newton's comparison of himself to a child standing on the shore of the great unexplored ocean of truth.

As the result of a lifetime spent in scientific study, he held unwaveringly the belief that "proofs of intelligent and benevolent design lie all around us," and declared that "we are absolutely forced by science to believe with perfect confidence in a directive Power—in an influence other than a physical or dynamical or electrical force." The Teutonic professor is generally the last of all

was a joke, one of the many "impossible" things the newspapers delight to exploit as a selling sensation, and which the level-headed practical citizen spurns with a fine air of contempt. Now think of what it is accomplishing—what need to describe it? How can we do justice to Marconi, or find the language that can express the world's gratitude to him for this the most astounding marvel of all the ages, the greatest boom that wayfaring men have fallen heir to?

He was a dreamer, but like his immortal countryman, Garibaldi, his dreams materialized in a fashion that proved they were no "nightmare" or the vaporous piffle of a diseased brain. If he did dream to some purpose in the interest of science, he has also proved that he can do the most practical thing a man can do—fight, and if need be, die in the last ditch for his country and the cause of universal freedom. To accentuate this last act of our young hero we reproduce the very latest photograph of him that has been published—in the uniform of a lieutenant of the Italian army.

These men and the galaxy of kindred spirits to which they belong were first of all "dreamers" in every sense of the word, but they were also workers. Had they not toiled terribly and persistently we had never heard of them; but, mark you, they never felt the burden of their toil and the very worst of it never wearied them like the drudgery of an unwellcome task. Their "feed fuel" was the eternal spark of enthusiasm, and nothing else in "fuel" will ever get a man anywhere.

Some few years ago we took part in the universal giggle that greeted the "new horseless carriage"—the precursor of the automobile—when it was exhibited in the streets of London. There's mighty little of an interval of time between that extraordinary contrivance that nearly went to pieces in a storm of ridicule and the latest (1916) model limousine. With that humiliating experience fresh in our memory, we have quite given over the habit of scepticism and particularly that worst form of it that finds its fun at the expense of the dreamer who has struggled and failed to materialize his dream.

We always take off our hat to the inventor, to the young or the old enthusiast who is for ever struggling to improve something.

If you have a boy who indulges somewhat in day-dreaming, and is curious about things—particularly about machinery and tools don't set him to saw wood as a punishment till you know more about him.



LIEUTENANT MARCONI of the Italian Army.



In connection with the submarine telegraph he invented the mirror galvanometer, various types of electrometers, and the siphon recorder for registering messages. By the help of these instruments trans-oceanic telegraphy can be carried on without the powerful currents which caused the failure of the first two attempts at transatlantic communication prior to 1860. And two of his repeatedly "smaller" inventions were his improved compass and his sounding apparatus which made him a truer friend to Jackie Tar than any fancied "cherub that sits up aloft" could ever have been.

Not only his own countrymen but foreign bodies from all round the globe showered well-merited rewards on this wonderful man of whom it has been said by leading scientists of his day that he made, in pure science, researches which alone have classed him as perhaps

men to acknowledge that he takes a second place to anything in the world of scientific thinking, and yet here is what Helmholtz, the great German scientist, said of Kelvin: "He far exceeds all the great men of science with whom I have made acquaintance in intelligence and lucidity and mobility of thought, so that I sometimes felt quite wooden beside him."

Italy's Soldier Dreamer

Most people who will read this can remember something of the thrill of excitement that passed around when it was "officially announced" that a mere youth had succeeded in establishing communication with a distant point without apparently any intervening sound-conveying medium—that in fact "wireless telegraphy" was as real and as material a part of our daily life as the doorbell of our humble terrace home.

It seems but yesterday when the idea of wireless transmission