A NEW YEAR'S MESSAGE AND INSPIRATION. EXTRACTS FROM THE ADDRESS OF HIS HOLINESS THE POPE AT THE CONGRESS OF CATHOLIC NURSES IN ROME.

Possibly the greater number of nurses in England have not even heard of the Congress of Catholic Nurses held in Rome a few months ago—still less do they realise that 1,800 nurses from all parts of the world gathered together at this Congress.

There were nurses from France, Germany, Spain, Italy, Belgium, Canada, Ceylon, Egypt, and other countries. A large proportion of these were nursing nuns, but a greater number were lay nurses.

nuns, but a greater number were lay nurses. Now, let no one say, "This does not interest me, because I am not a Catholic." The address given by the Holy Father when he received in audience these 1,800 nurses set before them in all its beauty the high vocation to which, as nurses, they were called, and his words can and should be accepted by all Christian nurses as an inspiration, counsel, and comfort.

After a loving and Fatherly welcome to the nurses, in which he called them "His children : His very dear children," and spoke of the noble profession of nursing, he continued : "Our ambition for you is the highest, for we want you to be the wisest and most excellent nurses, and this will follow on the fact of your trying to be the best possible Christians.

"Technically speaking, in order to be good nurses, you must keep in touch with all that is necessary for you to know. Knowledge is essential that you may know what you can and ought to do, and also that you may know what you must not do. There is your double battlefield; the professional and the moral ground: the assistance you give to infirmity, and the morality of that assistance.

"You know only too well the scientific difficulties and the vast field of discovery which presents itself in the name of science for your approbation and skill. You know the moral difficulties of your work only too well, thanks to the same materialism which surrounds you everywhere, and considers only the man and not the Christian, and would put Christ out of our lives altogether. He, Who Himself loved to come to the aid of suffering humanity, spoke thus of His representatives: 'There were those who would glorify Him, and those of whom He would be ashamed.'

"You will fill the heart of God with divine pride by the honour you will render to Him in your skill as nurses, and as a happy consequence, there will flow from you a stream of benefits for poor sick mankind. This then, dear daughters, is what you must do. It is well worth working for, living for, dying for; such an ideal....

"It is a wonderful and consoling thought to realise that what we do for the sick and suffering we do for Him, because He is present in all His sick children.

"These thoughts, dear daughters, should make you realise that you are persons much to be envied! It should be a joyful thought and one full of the promise of great happiness, because our Lord says to you, 'You visited Me when I was sick; you comforted Me and helped Me.'

"And this will be your consolation and your glory, that in the persons of your patients you will see the Person of our Divine Lord Himself."

FAITH G. WHITEHEAD.

RADIATION AND RAY-THERAPY.

BY MISS ISOBEL HUTTON, B.A.Lond., S.R.N.

"It is with a man's soul as it is with Nature :" wrote Carlyle, "the beginning of Creation is Light." How often do we hear it said that the recovery of a patient from an apparently hopeless illness is little short of a miracle and how seldom do we stop to consider that the wonder lies in the recuperative powers of the body and in the amazing weapons which Nature has provided for the fight against disease ? One of the most powerful of these weapons is light, of which we are only beginning to understand the value, although the ancient physicians of Egypt, Greece and Rome had a reverence for it which amounted to religion. Scientists can tell us much of the properties of light, but they cannot speak with any certainty of its origin ; like many other remedies employed by physicians the means whereby it acts are not fully understood. We must be thankful for these unexplained aids and hope that some day we may know more where at present we can only marvel, for, once more to quote Carlyle, "The man who cannot wonder, who does not habitually wonder (and worship)-is but a Pair of Spectacles behind which there is no Eye." Α study of those facts which are known concerning the properties of light or radiation gives a nurse not only a better understanding of some diseases and the means by which they can be cured or alleviated, but also some conception of the marvels of Nature which science has made known.

Some Dates in the History of the Science of Light.

In the year 1666 Sir Isaac Newton made the discovery that a beam of light when passed through a glass prism and reflected on a screen appeared as its component parts-namely, the colours of the rainbow shading from the red to the violet. This is due to the fact that each group of light wave-lengths is refracted differently. The rainbow is, indeed, only the spectrum of sunlight passing through a raindrop. In 1777 Scheele found that a screen painted with silver chloride, a photosensitive substance, was darkened by rays invisible to the eye and which appeared to come from a point beyond the violet end of the visible spectrum, and in 1801 Ritter made known this phenomenon of ultra-violet radiation. Herschel became aware of the existence of rays from beyond the red end of the spectrum in 1800. These are the infra-red rays, which have revolutionised photography and which are becoming known for their curative value also. For the 60 years following these discoveries no striking advances were made in the science of Light, but in the year 1868 James Clark Maxwell propounded his electro-magnetic theory of light and proved that light and other types of radiation travel at the amazing speed of 186,326 miles per second. In the same year Angstrom mapped out the wave-lengths of visible light. The unit which he adopted, a ten-millionth of a millimetre, is now in general use and is known by his name, the Angstrom Unit, designated by the symbols A.U., or simply A. During the latter part of the last century the discovery that the spectrum of any element in its gaseous state could be used as a kind of identification chart on account of certain properties of light absorption considerably advanced the science of chemistry.



