tiful words of Dr. Holmes may be applied here, and the lesson which he points out, may, in truth, be studied by all:

"Year after year beheld the silent toil
That spread his lustrous coil;
Still as the spiral grew,
He left the past year's dwelling for the new.
Stole with soft step its shining archway through,
Built up its idle door.
Stretched in his last-found home, and knew the old no more.

"Thanks for the heavenly message brought by thee,
Child of the wandering sea,
Cast from her lap forlorn.
Cast from thy dead lips, a clearer note is born
Than ever Triton blew from wreathed horn;
While on my ear it rings,
Through the deep caves of thought, I hear a voice that sings:

"'Build thee more stately mansions, oh, my soul,
As the swift seasons roll!
Leave thy low-vaulted past!
Let each new temple, nobler than the last,
Shut thee from heaven with a dome more vast
Till thou at length art free;
Leaving thine outgrown shell by life's unresting sea.'"

Ammonites varied in size from that of a dime to that of a wagon wheel. Many such remains may be found in Southern Utah, a large bed existing near Orderville, in Kane County.

The superstitions regarding fossils in general have been already referred to. A typical notion of the kind existed with respect to ammonites. Near Whitby, Yorkshire, England, these fossils are popularly known as petrified snakes; and the story of the people is that in early days snakes became so troublesome thereabouts, that the inhabitants importuned their patron saint, St. Hilda, who prayed for the destruction of the reptiles. In response to her entreaties, the creatures lost their heads and were changed to stone. These fossils, with plaster heads attached, are offered for sale by enterprising but unscrupulous dealers. Some file the last segment of the spiral shell into shape of a serpent's head, and thus strive to perpetuate the false notion. Scott mentions the popular belief:—

"And how the nuns of Whitly told,
How of countless snakes, each one
Was changed into a coil of stone
When holy Hilda prayed.
Themselves within their sacred bound,
Their stony folds had often found."

The Mesozoic age, however, was preeminently the age of reptiles. This is known from the abunbance of their remains and footprints in the rocks. The picture before you represents a number of such impressions. Surely none can doubt the accuracy of such records. And is it not marvellous that while the physical traces of man's greatest exploits have been practically annihilated from earth, the footprints of these creatures have been preserved with such exactness? Surely Agassiz was wise when he declared that the crust of earth is a vast cemetery, and upon the rocks as their tombstones, the buried dead have inscribed their own epitaphs. Even the marks of falling rain drops have been preserved, and thus a record of prehistoric storms is opened to our gaze.

There were giants among reptiles in those days. The view before you presents the strange *Ichthyosaurus*, or

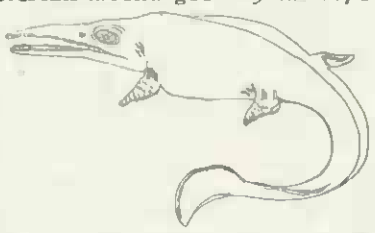

Fig. 15.

fish-like lizard (Fig. 15 is an outline). Its body resembled that of a dolphin; the head was lizard-like; the jaws and teeth suggested a crocodile; the skeleton is like that of a fish. The creature was from twenty to thirty feet long. Its eyes were remarkable, the orbits being often two feet in diameter, or two yards around. The eyeball was guarded by a ring of bony plates, by which adjustment could be made for long or short vision. The animal seemed generally adapted to a life in the stormy seas, perhaps delighting in the waves like the whale and grampus of our day.

The view farther shows the *Plesiosaurus* another reptilian monster (Fig. 16.) It was of a carnivorous persua-

Fig. 16.

sion, and is usually looked upon as having been at constant enmity with its contemporary, the *ichthyosaurus*. Sixteen species of plesiosauri have been found in the rocks of Great Britain alone. Specimens are known to have been from 25 to 30 feet in length; with paddles, each 6 to 7 feet long. The creatures body was powerfully built and of cylindrical form. Its neck was of excessive length; the cervical vetebrae numbering between 20 and 40. The spinal vertebrae were concave, thus rendering a serpentine motion possible. The *Teleosaurus* and *Pliosaurus* belonged also to the marine saurians of that day.

The *Megalosaurus* (Fig. 17) was a land reptile. It was carnivorous, its huge jaws well supplied with large flattened teeth. The neck was short as would be expected of an animal

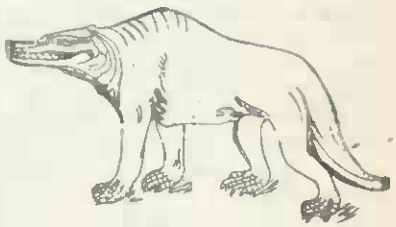

Fig 17.

with so powerful a head; and upon the shoulders was a vast accumulation of muscle, like the withers of a horse, to aid in supporting the head. A thigh bone of this creature has been found, measuring 42 inches in length. The animal was over thirty feet long.

Another reptile of amost unimaginable proportions was the *Hylaeosaurus* (Fig. 18). This creature stood from 10 to 15 feet high, and not less than from 25 to 30 feet long. The

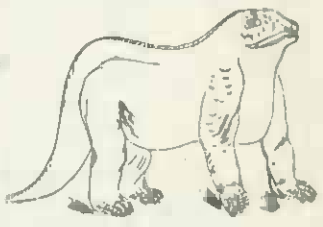

Fig. 18.

view upon the screen well shows the huge bulk; also the toad-like form of head. It was a cold-blooded creature, as all reptiles are; and to our ideas of grace and beauty, doubtlessly revolting.

The *Iguanodon* is also represented before you (Fig. 19). The artist has pictured the creature as seen at a distance; thus deceiving us as to its real size. Here it seems but small; and yet its bones show that it must have been several times larger than an elephant. It is believed from the shape of its body that the creature