THE VARI IN THE BERLIN ZOOLOGICAL GARDEN.

The lemur may be considered the connecting link between the ape and rodents; the construction of the hands and feet reminds one of the former, and that of the body, and in some cases of the jaw, reminds one of the latter. The marking of the lemur is very striking; as is well known, the Romans believed that they were the departed souls of the dead, for the propitiation of which the lemuria—midnight fetes—were celebrated. Like true ghosts, these wandering souls shunned the daylight, carrying on their mischief during the night. From these creatures which shun the light the lemurs took their name; they are truly creatures of the night, and do not lose this peculiarity when in captivity. The lemurs in the Berlin Zoological Garden and the Aquarium sleep the greater part of the day, in spite of all the disturbance caused by visitors; when night closes in and the lights are put out, they become gay, rushing nimbly about their cages.

The vari (*Lemur varius*) belongs to the rarer specimens of this family. It attains a length of about three feet, including the tail, which is about half the whole length. The marking of the specimen shown in the accompanying illustration is very regular, black and white alternating, for only the bushy tail is entirely black; but in many varis the distribution of color varies. The face framed in long white hair and the sharp eyes give the animal a peculiar appearance. The black, dextrous hands bear an unpleasant resemblance to the corresponding members of the human body, and everything done with them, even the catching of running and flying insects, is accomplished with absolute certainty. The varis live in large companies on the island of Madagascar, where they make nightly excursions, uttering horrible cries. Their food generally consists of fruits, although they will gladly eat a live bird or other dainty morsel. They are not very intelligent, and are always very shy, taking flight on the slightest provocation. When in captivity they soon accustom themselves to their keeper, and are very gentle and good natured, but a loud word is enough to confuse them.

All lemurs have the power of creeping about noiselessly like a cat, going around straw, little stones and dried leaves so as not to disturb their prey.

The young vari, which is perfectly developed at its birth, clings so close to the mother as to almost disappear in her fur.—*Illustrirte Zeitung.*

THE VARI IN THE BERLIN ZOOLOGICAL GARDEN.

How to Make a Good Floor.

Nothing attracts the attention of a person wishing to rent or purchase a dwelling, store room, or office, so quickly as a handsome, well laid floor, and a few suggestions on the subject, though not new, may not be out of place.

The best floor for the least money can be made of yellow pine, if the material is carefully selected and properly laid.

First, select edge grain yellow pine, and not too "fat," clear of pitch, knots, sap, and split. See that it is thoroughly seasoned, and that the tongues and grooves exactly match, so that when laid the upper surfaces of each board are on a level. This is an important feature often overlooked, and planing mill operatives frequently get careless, and in adjusting the tonguing and grooving bits. If the edge of a flooring board, especially the grooved edge, is higher than the edge of the next board, no amount of mechanical ingenuity can make a neat floor of them. The upper part of the groove will continue to curl upward as long as the floor lasts.

Supposing, of course, the sleepers or joists are properly placed the right distance apart, and their upper edges precisely on a level and securely braced, the most important part of the job is to "lay" the flooring correctly. This part of the work is never, or very rarely ever, done nowadays. The system in vogue with carpenters of this day of laying one board at a time, and "blind nailing" it, is the most glaring fraud practiced in any trade. They drive the tongue of the board into the groove of the preceding one by pounding on the grooved edge with a naked hammer, making indentations that let in the cold air or obnoxious gases, if it is a bottom floor, and then nail it in place by driving a six-penny nail at an angle of about 50° in the groove. An awkward blow or two chips off the upper of the groove, and the last blow, designed to sink the nail head out of the way of the next tongue, splits the lower part of the groove to splinters, leaving an unsightly opening. Such nailing does not fasten the flooring to the sleepers, and the slanting nails very often wedge the board so that it does not bear on the sleeper.—*Exchange.*

Electricity on War Ships.

Electricity on ships of war is purely an American idea, and was first tried on the United States steamer Trenton in 1883, says the New York *World.* Soon after the system had been tested the vessel sailed on a three years' cruise, and attracted much attention as the first vessel afloat to be lighted by electricity. The success of the Trenton's experiment practically settled the question in naval circles. Through the exertions of Lieut.-Commander R. B. Bradford, who was the Trenton's executive officer, electric lights were placed on the Vermont, New Hampshire, Omaha, Dolphin, and Chicago. The Baltimore, Charleston, Yorktown, Bennington, and Concord will be supplied with the latest improved plants, and there is nothing afloat that can excel the system. Each cruiser has about 500 lights, and the gunboats about 250, with sufficient supplies to last three years. All the cut-outs and switches are made water-tight, and tested by turning a stream of water on any part of the circuit.

There are innumerable devices by which electricity is made useful on board ship. The value of the search light cannot be estimated, as scouting parties, torpedo boats, or swift steam launches can be detected a mile away on the darkest night. As a motive power for small machines it is invaluable, and on the Chicago will be brought into play for training the huge guns of the main battery. It is used also for discharging the rifled ordnance, and the entire system is under the absolute control of the commander from his position in the fighting tower. He requires no uncertain assistants to place him in communication with the various departments of the complex machine. Electrical devices perform all the duties, transmit the orders and control the movement with far greater accuracy and safety than would be possible by the old methods.

The simple pressure of a button endows the huge monster with life and activity, causing 10,000 tons to glide smoothly through the water at a speed of 20 knots. At the touch of a second button the great shields swing noiselessly aside and the huge apertures are disclosed, filled the next instant by powerful rifled breech-loaders. There is a hush, a moment of expectancy, as the commander peers through the little slot on a level with his eye in the tower, touches a third button, and the cruiser vomits forth sheets of flame. The long steel shot dart through space at the rate of 2,000 feet in a second. Bow, stern, and broadside respond in one terrific roar, and, crash! the fabric trembles 'neath the simultaneous explosion of 6,000 pounds of powder, and 12,000 pounds of metal are sent whizzing through the air by means of the electric slave of the dynamo.

The merest motion of the little polished lever directly in front of the capstan brings the powerful search light into action, and sends a dazzling beam through the dark void. To the left protrudes still another concave, innocent-appearing globe, which controls a silent though potent and death-dealing auxiliary. A slight click is heard, a puff of white smoke, and the Whitehead torpedoes glide from their smooth tubes, and are driven through the water at the rate of thirty miles an hour. An electric bell signals the officer in charge of the quick-firing and machine guns when to play his part, and ere the gong has ceased to vibrate, thousands upon thousands of explosive projectiles are flying through the air at the rate of 1,900 feet per second.

The latest electric appliance is a system of engine room telegraph, invented by J. B. Wallis, an Englishman. It has been thoroughly tested in the royal navy, and adopted on her Majesty's ships Camperdown, Rodney, and Aurora. It is also being fitted to the Magicienne and the Marathon, two second class twin-screw cruisers. The Wallis system comprises an engine room telegraph, a revolution-order telegraph, and a steering telegraph, the principle being the same in each case. The engine room telegraph cousists of a combined transmitter and reply indicator, inclosed in a case mounted on a pedestal. This instrument has a dial, around which the orders to be transmitted are distinctly marked, and a handle at the back turns a pointer to the desired command.

The moving of the handle or lever gives the "attention" signal to the engineer. The engineer putting his lever over causes a bell to be sounded on the bridge, which calls attention to the fact that he is acknowledging the order and repeating it back. The revolution telegraph is a simple means of transmitting to the engineer the number of revolutions at which the commander wishes the engine to run. The admiral may signal to the fleet that he is going at seventy revolutions, which signal has to be repeated to the engineers, in order that all the vessels may keep in line with the flagship. The steering telegraph is another application of the same principle. The transmitter and receiver are similar to those of the engine room telegraph, the latter being ingeniously attached to the rudder, which makes the record automatically.

In connection with the steam steering wheel, which in the fighting tower of an ironclad is directly under the commander's control, he has at his disposal a terrible and decisive weapon, once it is put in motion. Projecting a number of feet in advance is the ram attachment, its proportions and deadly qualities concealed under water. Emerging from whirling clouds of battle, guided by the will of the commander, the great fabric, impelled by the combined strength of the immense engine, with furnaces glowing and steam hissing, the cruiser rushes straight onward, prepared to crush into its opponent.

The Egypt Exploration Fund.

Few educational enterprises have yielded larger results for the amount invested than the Egypt Exploration Fund. Expending annually since 1883 between $7,000 and $8,000, it has discovered or disclosed the following interesting sites: Pittrom (the treasure city of Exodus i. 11). Goshen Tahpanhes (the Daphnæ of the Greeks), the city of Onias, Zoan, Am, Naukratis, and latest of all, Bubastis (the Pi-Besetti of the Scriptures). These discoveries have been conducted in a thoroughly scientific manner and have yielded rich results regarding the sciences, arts, and industries of past ages, the early sources of Greek history, and particularly Biblical and secular history.—*The Chautauquan.*