

THE DECAPITATED PRINCESS.

Among the few really successful illusions presented in France in the last few years, the one called the decapitated princess succeeded in mystifying the public most admirably. On entering the room in which the illusion is exhibited, the spectators see a curtained recess, within which is a beautiful chair resting on a raised platform, with two swords lying across the arms of the chair and a lady's head resting on the swords, as shown in one of the views. The illusionist states that this is the head of an Egyptian princess who was accused of treason and beheaded. This gentleman relates a very interesting little story about the princess, how the head retained all of the faculty of the living after being separated from the body, and was placed on the throne chair in which she would have soon taken her seat as ruler of her people if it had not been for the accusation of treason, and how he secured possession of the head.

Regardless of this story the spectator knows he is looking on nothing but a clever illusion. The chair is upholstered in red plush and is placed close to the curtain at the back of the recess. At the back of the chair is an opening just below the level of the tops of the chair arms. This opening is not seen from the front, as it is concealed by a mirror that is placed between the arms of the chair at an angle of 45°. The ends of the mirror rest in folds of the fan-shape upholstery on the inside of the chair arms. The lower edge of the mirror is resting on the bottom of the chair and the upper edge is concealed by laying one of the swords on it, as may be seen in the other illustration. At the proper angle the bottom of the chair is reflected in the mirror, leaving the impression that one is looking at the back. The folds in the upholstery of the inside of the arms effectually conceal the ends of the mirror. There is a hole in the rear curtain directly opposite the hole in the chair back, through which there passes a board supported at one end by resting on the seat of the chair and at the other end by a small box or any convenient article.

The lady who is to impersonate the princess takes her position on this board with her chin just above the edge of the mirror, the second sword is placed at the back of her head and a wide lace collar that she wears around her neck is adjusted so as to rest nicely on the two swords. The second illustration shows the board in position passed through the curtain, with the lady lying on it, her head on the swords and the lace collar in position. The curtain in the rear must be close to the chair, but the side curtains are removed about five feet. The board is padded so as to make the lady as comfortable as possible when on the board.

Animals' Change of Color in Cold Countries.

As winter approaches and the green of summer is replaced by snow and ice, a peculiar change occurs among certain animals. At the first hint of cold they begin to assume a different color; tints of gray and lighter hues appear in the somber black or dark coat of summer, and soon the animal is mottled with dark and white patches, finally becoming a pure white, that is at once a protection, rendering it almost invisible on the snow. Before the change was understood it was supposed that the animals were distinct forms, one white and the other dark. But it is now well known that a number of animals change their color with the regularity of the seasons, says the Philadelphia Times.

One of the most interesting examples is the hare, several of which are known to assume a winter pelage, the most familiar being the varying hare and the Arctic hare. The latter in summer, when it would in a winter coat present a marked and striking contrast to its surroundings, is on its upper side black and a light brownish yellow, mixed; the upper portions of the tail and the tips of the ears black. This color is retained all through the summer, but at the approach of the cold season the pelage begins to fade and gradually becomes white, with the exception of the tips of the ears, which remain black.

This wonderful changeable hare is found in the Alps,

Ireland and Scotland, and in the Arctic regions of Asia. In many of the Arctic explorations it has been of the greatest service to the men from its habit of frequenting camps. The voyagers of the Vega often relied upon the little animals in time of need and when food was scarce.

In America, in the far north, we have the same hare,

will hardly seem possible that they represent the same animal. The fox is a very cunning and intelligent creature, as all Arctic travelers have discovered. It is an inveterate thief, stealing for the pleasure of stealing, taking from the Vega explorers not only food, but knives, forks, ammunition, sacks, shoes and stockings. When the men slept they would crawl under the robes

and nose them, and if those awake held their breath, pretending to be dead, the foxes would begin to nibble them, and when frightened off would carry away a hat, mittens, or anything that came in the way. If followed, one of the foxes would go on guard while the others buried the stolen goods.

The ermine, whose fur has become fashionable again, is a familiar example of this remarkable change in color. It is common in all the northern countries and in our own country down to the Southern States, a most destructive little creature, killing chickens, birds and various animals, often simply for amusement. An ermine has been observed watching a bird, placing itself beneath an inviting roost; when the bird alighted it sprang at it, clinging to it, although carried a long distance into the air.

Some curious experiments have been tried with this little animal. Four or five were caught one summer in the north and found to have rich coats of a mahogany brown color. Two were sent to some one in the Southern States, while the remainder were kept where the cold winter prevailed. Those in the north began to change as the leaves disappeared, the strange

painting of nature gradually going on until the animals, with the exception of the tip of the tail, were pure white. Correspondence has been kept up with those having the other ermines in charge, but in vain they looked for the winter change. The animals retained their mahogany-colored coat during the warm winter, showing conclusively that the change is produced by the cold, and is a wise provision of nature, rendering the animals almost invisible to their enemies.

There is another reason given for the change—a wise provision of nature to protect the ermine from the cold. Animals with black or dark colored fur radiate internal heat more effectually than those of lighter colors; so the ermine in its white coat absorbs the rays of the sun, radiating but little; thus the change becomes an important factor in the preservation of the heat supply.

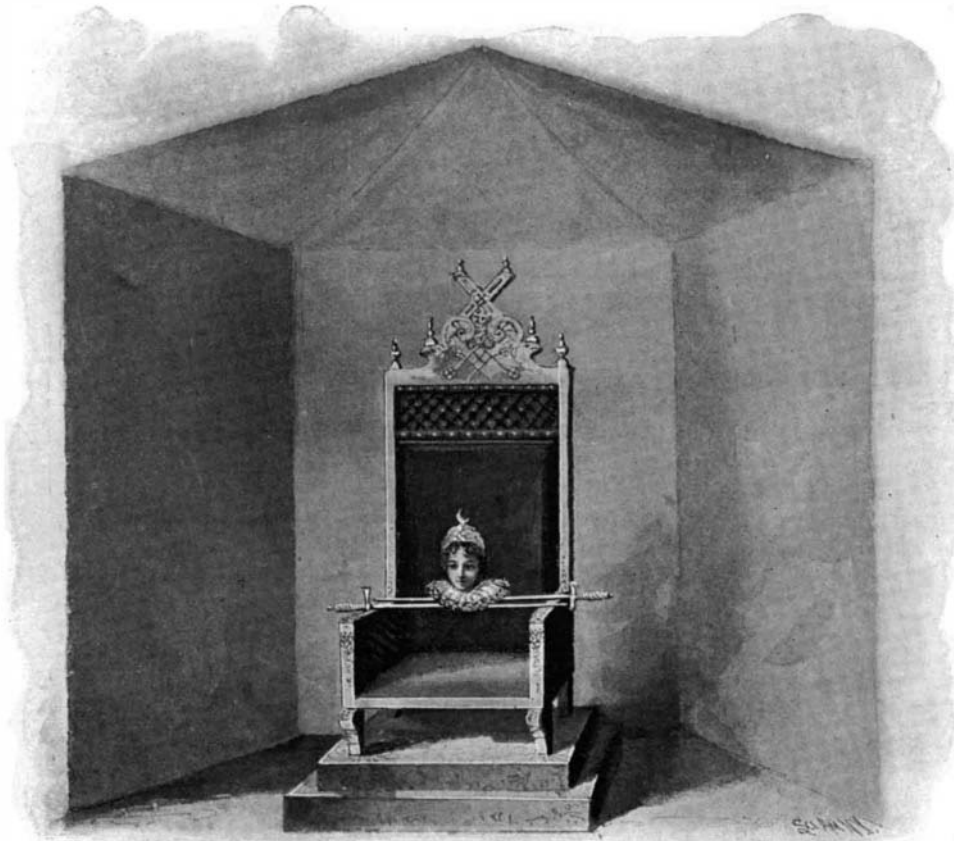
In their movements these animals and their allies resemble serpents, and the actions of an ermine stealing along with sinuous motion over the snow are very suggestive.

Temperature of the Polar Sea.

Some of the members of the Nansen expedition at Tromsøe have been relating to a Reuter's correspondent some of the scientific facts gleaned during the expedition. During the course of the cruise the crew had on several occasions exciting encounters with bears. North of 84°, however, no animal life was found to exist, and this would seem to cast some discredit on the hitherto prevalent theory that if a sufficiently high latitude could be attained one would come to dry land and open water, because birds are to be seen flying toward the extreme north. This northerly flight of the birds is now believed to be attributed to their having lost their way or as being blown out of their course. The depth of the water in the extreme north also seems to indicate that there can be no land near. Soundings taken at 84 latitude gave a depth of from 1,310 to 1,530 fathoms, and further north the lead reached even greater depths, as much as 3,186 fathoms, it is said. From observations made in 1894-96, the temperature of the sea in these regions was found to present several peculiarities. At a depth of 109 fathoms the water was cold. Then came a stratum of about 382 fathoms with some degree of heat, and under this stratum about 490 fathoms of cold water. The proportion of salt in the water varied a good

deal. These conditions were pretty much the same everywhere. The further north they got the less current and tide there was, while the wind began to exercise considerable influence on the course of the Fram.

The passage has now been opened from end to end of the new Blackwall tunnel.

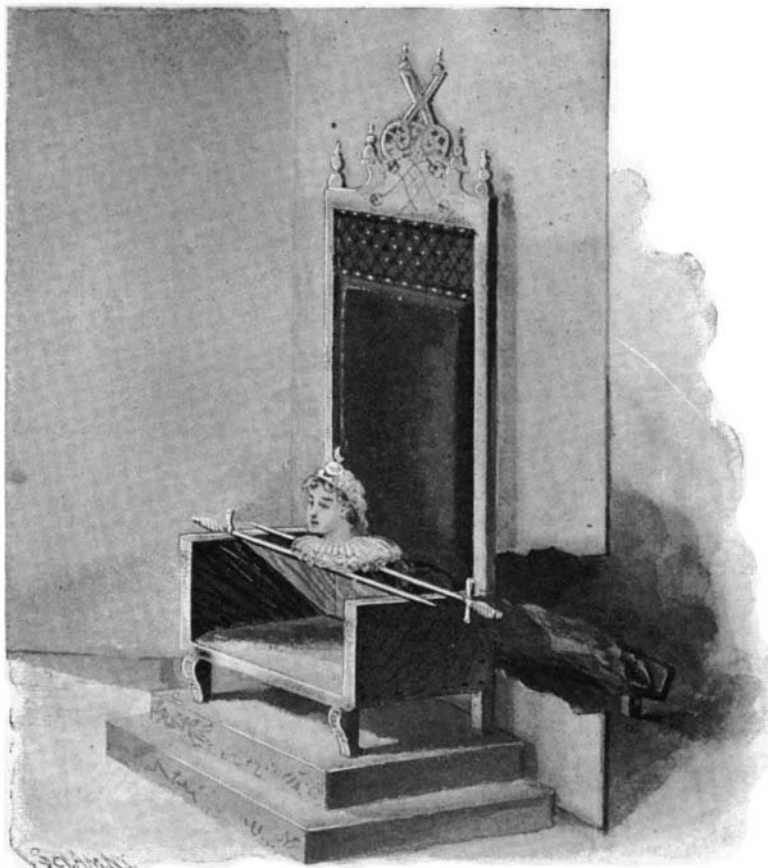


ILLUSION OF THE DECAPITATED PRINCESS.

but a larger and finer animal, known as the polar or glacier hare. The American form ranges from the north to the middle portions of the country, and in regions away from the extreme north changes only slightly or imperfectly. As the cold comes on, its dark coat fades to a lighter hue, becoming pronounced in summer again.

The protection afforded these animals in the far north is almost perfect, as it is almost impossible to distinguish them from the snow. When they run they seem to be swallowed up in the field of white.

The principal four-footed enemy of the white hare is the Arctic fox, that is endowed with a similar protection. It is one of the smallest foxes known, and certainly one of the most beautiful. In summer, when the ground is bare or covered with verdure, the little



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animal has a silky fur, bluish or brownish gray. This lasts until the snow comes, when the coat gradually changes. The hair becomes longer and thicker, especially on the tail and feet, which are densely furred, and by midwinter, or before, it is pure white, without a suspicion of its summer hue.

If the winter and summer pelage be contrasted, it