

tion by rail with a vast stretch of mineral and grazing country which has heretofore been largely dependent upon San Francisco and the East. New markets are thus opened to us, and the importance of Portland as a railroad centre and distributing point becomes more plainly evident. There was no such flourish of trumpets as accompanied the driving of the last spike on the Northern Pacific, but it is questionable if this quiet event does not mean vastly more to our future prosperity.

THE effort of certain wealthy cattle men to secure a lease of nearly all the best portion of the Crow Reservation for a stock range is calling out much opposition from the people of Eastern Montana. Several public meetings have been held, and Delegate Maginnis is already in Washington in the interests of his constituents working against the scheme. These lands should be thrown open to the occupation of the people, and not permitted to fall into the grasp of a few cattle kings.

THE leading sheep men of Montana are Siems & Armington, a wealthy St. Paul firm. They recently purchased three large bands, aggregating thirteen thousand, and expect to add to these by other liberal purchases. The firm's headquarters are at Fort Benton, and the ranges along Belt Creek. Sheep interests are rapidly coming to the front in that prosperous Territory and taking rank with mining and cattle. Northern Montana is the seat of this industry.

A CAREFUL estimate places the number of beef cattle in Idaho at 360,000.

JUDGING OF DISTANCE.

IT is very difficult to judge of distances at sea. Refraction always changes the apparent place of an object, so that we seem to see the sun after it has gone below the horizon. A more striking but less frequent phenomenon of refraction is that known as mirage. Refraction also affects the color of an object. The media through which light passes has more or less effect upon the ray. In a fog objects are dimly seen, the effect resembling that due to distance; hence objects look larger, for the eye judges of the size of an object by multiplying the size of the image or impression received by the square of the distance, while the latter is estimated from the indistinctness of the object. In the fog the apparent distance is increased, but the eye interprets it as due to the opposite cause. On looking at the photograph of a tree, a church, a monument or a pyramid, it is not possible to form a correct idea of its size unless a man or animal is seen in the same view with which to compare it. In Nature, especially on land, the intervening objects that lead up to it give the data on which to calculate the distance. Where none intervene, as in looking from peak to peak, the eye must depend on distinctness, and where the air is very clear and transparent, as in Colorado, distances seem less than they are. If the object is seen through transparent but colored media, the form remains true, but the colors are changed. At sea, on a clear day,

distances may be calculated approximately by the proportion of an object which appears above the horizon line. The horizon is about ten miles distant when seen from the deck of an ocean steamer, consequently another steamer which is "hull down" will be distant from the observer some twenty miles. With care distances can be thus quite accurately calculated.

CANDLE SUPERSTITIONS.

SO far as number is concerned, the most numerous class of superstitions is composed of those which cluster round the family candles. The origin of these probably dates far back in antiquity, when the world was full of superstitious fancies about light in general and candle light in particular. When we come down to the early days of the Christian Church, however, we find that not a few of the ordinances of religion were accompanied by ceremonies borrowed from paganism, in which lighted candles played an important part. Candles were lighted at birth to keep off evil spirits, at marriage to prevent the evil eye from affecting the happy pair, and at death to drive away the demons who were thought to be always on the lookout for the soul of the dying man. Naturally then, as candles played so important a part in the ceremonies of religion, men became accustomed to regard them with something of a superstitious eye, and to look to them for signs and wonders which were not to be elsewhere found. So a peculiar appearance in the candle, for which no reason could be given, was always regarded as something indicative of some remarkable thing about to happen. A collection of tallow round the wick is still known as a winding sheet, and is believed to foretell the death of one of the family, while a bright spark is a sign of the future reception of a letter by the person opposite whom the spark is situated, and the waving of the flame without any apparent cause is supposed to demonstrate the presence of a spirit in the room. In addition to these fanciful notions, there are some others which are founded on natural facts too well known to admit of dispute, such as the refusal of the candle to light readily, which indicates a state of atmosphere favorable to a coming storm.

ANCIENT WOOD ENGRAVING.

THE art of wood working is the oldest means whereby man gratified his vanity or his eye, and the one which, even among savages, still maintains its excellence. The New Zealander's club and the ancient Aztec's gods, the Hydah Indian's pipes and the paddles of the Polynesian canoe man, are marvels of carving, executed with the rudest tools. In the Kafir country of Central Africa are entire villages composed of wooden houses, elaborately carved on post and pillar. Until the fear of fire led to the use of iron and stone as building material, such towns were common in Europe. Beams, brackets, door-heads and gable ends were effectively hewn with grotesque images of demons, heraldic devices, and those fair, saintly faces which still look down on us with a glance so benign.