

exceptions of the Galloway breed intermixed, particularly along the coast from Whitehaven to Carlisle.

"This breed of Longhorns is not distinguished by any peculiar good qualities, which is not to be wondered at, when it is considered that, probably at this time, there is not one person in the county who pays any attention to its improvement. Twenty years ago, Mr. Hazle, of Dalemain, had made some progress in this business, and gained a very useful breed of Longhorned cattle; but his successors neglected them, and the labours of the good old man are totally lost.

"The Longhorned and the Galloway polled cattle are probably the best adapted to this county of any other; but the kind of Longhorns that occupy it at present, may certainly be much improved, by paying proper attention to breed always from the best males and females that can be selected. This end would be the readiest attained by getting good bulls and heifers from the midland counties, where the Longhorned breed are brought to great perfection."

The Longhorns now discarded have given way to the Shorthorn. Along with attention to the breeding of Shorthorns, considerable attention has been devoted to the improvement of the Galloway. An occasional dairy of Ayrshires is to be seen in the county, but a striking peculiarity which we lately observed in passing through this county is, that on one side of the line there was an excellent herd of Galloways, and on the opposite side a herd of Shorthorn crosses. There can be little doubt that the owner of each herd believed his own to have been the most profitable, as they showed that an amount of care and attention had been bestowed on their selection. It is not improbable that an inquirer anxious to determine which breed was the most suitable for the district would have been furnished with information which, to use a Scottish phrase, would show that "both were best." Many will believe that it is less a question of breed for such a district as the county of Cumberland than the selection of that peculiar breed with attention to the requirements and general comfort of the animals. As this county is an extensive breeding district, the question as to the best breed becomes of greater importance to the agriculturists of the district.

Cumberland was, at the beginning of this century, one of the wildest and most backward districts in the country. With an average rainfall of from 60 to upwards of 80 inches in the year at Keswick, it can be supposed that, without modern drainage, except the very driest portions, the land would be almost wholly unfit for cultivation. Nearly the whole operations of the farm were executed by the farmer and his family—nearly all the servants that were engaged were boarded in the farm house, and the wages were at a minimum rate.—Servants were only engaged by the half year, to prevent them from gaining settlements. Wages for men, from £5 to £7; women, £2 to £3. At the end of the last century there were no thrashing machines, no drills, nor horse hoes. Now the former of these are in general use, and the drill and horse hoe is slowly coming into use.

SCIENTIFIC.

THE PHILOSOPHY OF RAIN.

To understand the philosophy of this beautiful and often sublime phenomenon, so often witnessed since the creation of the world, and essential to the very existence of plants and animals, a few facts derived from observation and a long train of experiments must be remembered:

1. Were the atmosphere everywhere, at all times, at a uniform temperature, we should never have rain, or hail, or snow. The water absorbed by it in evaporation from the sea and the earth's surface would descend in an imperceptible vapor, or cease to be absorbed by the air when it was once fully saturated.

2. The absorbing power of the atmosphere, and conse-

quently its capability to retain humidity is proportionably greater in warm than in cold air.

3. The air near the surface of the earth is warmer than it is in the region of the clouds. The higher we ascend from the earth, the colder do we find the atmosphere. Hence the perpetual snow on very high mountains in the hottest climate. Now when from continued evaporation, the air is highly saturated with vapor, though it be invisible and the sky cloudless, if its temperature is suddenly reduced by cold currents, descending from above, or rushing from a higher to a lower latitude, its capacity to retain moisture is diminished, clouds are formed, and the result is rain. Air condenses as it cools and like a sponge filled with water and compressed, pours out the water which its diminished capacity cannot hold. How singular yet how simple, the philosophy of rain! What but Omniscience could have devised such an admirable arrangement for watering the earth?—*Scientific Journal.*

REMARKABLE WORKS OF HUMAN LABOR.

Nineveh was 5 miles long, 8 wide, and 40 miles round, with a wall 100 feet high, and thick enough for three chariots abreast. Babylon was 60 miles within the walls, which were 75 feet thick and 300 feet high, with 100 brazen gates. The temple of Diana, at Ephesus, was 429 feet to the support of the roof. It was an hundred years in building. The largest of the pyramids is 481 feet high and 653 on the sides; its base covers 11 acres. The stones are about 30 feet in length, and the layers 208. It employed 330,000 men in building. The labyrinth in Egypt contains three hundred chambers and 13 halls. Thebes, in Egypt presents ruins 27 miles round, and 100 gates. Carthage was 23 miles round. Athens was 25 miles round, and contained 359,000 citizens and 400,000 slaves. The temple of Delphos was so rich in donations, that it was plundered of \$500,000, and Nero carried away from it 200 statues. The walls of Rome were 13 miles round.

EFFECTS OF KNOWLEDGE.

The more widely knowledge is spread, the more will they be prized whose happy lot it is to extend its bounds by discovering new truths, to multiply its uses by inventing new modes of applying it in practice. * * Real knowledge never promoted either turbulence or unbelief; but its progress is the forerunner of liberality and enlightened toleration. Who dreads these, let him tremble; for he may be well assured that their day is at length come, and must put to sudden flight the evil spirits of tyranny and persecution which haunted the long night now gone down the sky.—*Brougham.*

DISCOVERIES AND PROGRESS OF THE LAST CENTURY.

There is no period since the commencement of the world in which so many important discoveries, tending to the benefit of mankind, were made, as in the last half century or so. Before the year 1800 there was not a single steamboat in existence, and the application of steam machinery was unknown. Fulton launched the first steamboat in 1807; now there are three thousand steamboats traversing the waters of America, and the time saved in travel is equal to seventy per cent; the rivers of nearly every country in the world are now traversed by steamboats. In 1800, there was not a single railroad in the world; there are now, in England and America alone, about twenty two thousand miles of railroad, costing in the neighborhood of three hundred millions of dollars. In 1800, it took weeks to convey intelligence between Philadelphia and New Orleans; now it can be accomplished in minutes by the electric telegraph, which only had its beginning in 1843.—*U. Canada Journal.*