

Stock.**The Range Cattle Situation.***[From our Chicago Correspondent.]*

It now turns out that last winter's losses on Montana and other western cattle ranges were, in many cases, as high as 80 percent. Think of it! what other business could stand such a collapse in value and still enable the principals to continue? True, there have been quite a good many failures among western ranchmen lately, and among the banks that were carrying them, but it is not so astonishing that some have failed as it is that every one sustaining the terrible losses of last winter, followed by the unprecedented low prices of the past season, did not go to the wall. The Texas Live stock Journal, of Fort Worth, makes a statement which shows, indirectly, how it was easy in the days of ranch booms for men to roll up fabulous fortunes very quickly. It says:

"Lest there be any doubt about it, the Journal will continue to assert that at present prices for beef, Texas cattlemen can raise cattle at a profit. * * * The cattle are no longer paying the banks 18 percent per annum and then leaving the ranch owner an additional 25 percent, but there is a living profit remaining in the business."

In connection with the above it may be interesting to give a few comparative figures of prices now current, which enable Texas ranchmen to get "a living profit," and those current three or four years ago, and the reader may draw his own conclusions of what the profits must have then been. Present prices for Texas cattle are as follows: Steers, 950 to 1,100 lbs., \$2.20@2.60; 700 to 850 lbs., \$1.75@2.30; cows, 650 to 850 lbs., \$1.25@2.15; yearling heifers and steers, 450 to 600 lbs., \$1.25@1.75; bulls, \$1.40@1.90; calves, \$2.50@3.00 per hundred pounds live weight. Now, compare these prices with 1882: Steers, 950 to 1,100 lbs., \$5.00@6.00; 700 to 850 lbs., \$3.75@4.75; a few barren and aged cows sold at \$3.15@4.50; bulls, \$3.15@4.00; breeding cows, none marketed for beef, but extremely hard to buy on the range at \$25@30 per head, such as are now selling for beef at about \$7@9 per head net; yearlings on the range at \$16@18 per head, and scarce at that, against \$4.50@7 per head net for beef now. Then it was hard to get enough steers to supply the beef market, while yearling and she stock could hardly be had, even at very high prices. Contrast the difference. The market this year has been flooded and swamped with steers in all conditions of flesh (except really fat); cows and heifers marketed by the hundreds of thousands. One man sent in 1,063 heifers in one consignment that sold for \$1.35@1.55 per hundred, averaging about 475 lbs., and another cattle company sent in about 1,000 head of yearling steers and heifers for which the check representing the net price for the lot at market was less than \$5,000. Just compare this with what they were worth four years ago, and remember that "there is a living profit remaining in the business" still.

Two or three years ago ranchmen commenced checking the production of range cattle by spaying large numbers of heifers and cows and letting the stock of bulls run down; but within the last year they have been taking more heroic measures; like the Yankee who cut his dog's tail off "just behind the ears," they have exchanged the spaying knife for the spear and cleaver, and if

the overproduction is not speedily checked in this way they will have to give it up for a bad job.

But one great reason why range cattle have been thus sacrificed is because money has been scarce; bankers have forced ranchmen in some cases to sell everything that would realize a dollar, and the capitalists who were rushing after cattle like madmen when they were worth three times as much as now, and fully twice as much as they ever ought to have been worth, are now standing back afraid to take hold.

Good corn-fed cattle are holding their own at \$4.75@5.40, and judicious feeding of beeves promises to pay.

Receipts of cattle at Chicago this year are already some 280,000 ahead of last year.

Ventilating the Stable.

There is no doubt that the construction of warm stables without efficient ventilation has had a great deal to do with the prevalence of disease amongst our stock. It has been the interest of the owners of fancy stock to advocate warm stables to conform with the artificial conditions under which such stock is reared.

The first principles of ventilation are quite simple, although they seem to be very imperfectly understood. They are simply this: The warmer the air the lighter it is, and when specifically lighter than colder currents in the surrounding space, it ascends, the space being occupied by the cooler volumes. Warmth is a constant emanation from the bodies of all the higher animals, and as the exhalations contain a noxious gas (carbonic acid), as well as warmth, it is very desirable that they should be permitted to ascend, the space being filled with pure, cool, bracing air. When heat is produced in this way, the more poisonous and unhealthy the stable becomes. With cattle which retain their natural hardness to any appreciable extent, the process of ventilation is very simple, but with fancy stock, it being desirable to remove the foul gases and retain the warmth, the question is a complicated one, and it is no wonder that the use of stoves in the stable is being agitated.

Inseparable from the question are the causes of the temperature of the natural air in the stable; that is, the condition of the air when no animals are in the stalls. In the chink stable, this temperature is about the same as that outside, and in all stables built above ground the natural tendency is towards outside temperatures, for cold and heat penetrate all kinds of walls, the benefits being mainly protection from sudden changes of temperature. With underground stables, however, the case is different; for the temperature there tends strongly to conform with that of the ground against which the walls are built. The temperature of the soil varies with the depth, and below the freezing line the temperature is pretty constant all the year round. The temperature of the stable is therefore largely governed by the character and location of the soil against which the walls are built. At three to four feet deep, the average yearly temperature of the soil in our climate is about 50° Fahr., the variations being between 45° and 60°. The natural temperature of a close stable would not therefore vary much from 50°—just the temperature at which the stable should be kept. However, as it may safely be reduced to 47° or 48°, this will make allowance for frozen ground around the upper crust of earth against

the walls, and on an exposed wall on the front of the stable. Practically, therefore, all the heat produced by emanations and exhalations from the animals may be removed from the stable, and the ventilators which will remove this heat will also remove the poisonous gases. More accurately, we should have said nearly all this heat should be removed in order to make allowance for occasionally opened doors, and other openings. But this calculation is based upon the supposition that the air admitted to replace the warm air is the same as the natural temperature of the stable, which is not the case in the ordinary systems of ventilation.

How can winter air at 50° be admitted into the stable? Simply by leading an underground pipe into the stable, which will heat the air in winter and cool it in summer. The admitted air will tend to conform to the temperature of the soil at the depth at which the pipes or tiles are laid. The limit of this article will not admit of our going into calculations as to the size and length of these pipes. However, if they are too short, the temperature of the soil will not act rapidly enough upon the air during its passage; and if too small, the velocity of the air through them would be so great that the same results would follow. This latter objection may be overcome by admitting several pipes into the stable; but it would be much cheaper to admit one only. When one is admitted, it should enter the stable near the centre, and the ventilators should be as far from it as possible. If a pipe is led say into each corner of the stable, there should be only one ventilator, which should go up through the centre of the building. A large cap should be placed over the end of the pipe which comes through the stable floor, so as to distribute the admitted air in all directions through the stable.

The General Purpose Cow.

There is a great deal of misunderstanding on this question, and it cannot be fairly discussed without definitions. By ordinary acceptance, however, the general purpose cow is supposed to be one which produces milk and beef with equal facility. But as milk is usually converted into butter or cheese, another problem is involved, viz., the relation between the beef, milk, butter and cheese. If this ended the complication, there might be faint hopes of a partial agreement amongst a few of our high authorities. In reality, beef itself comprehends as much as the group of milk, butter and cheese. A standard must be set for beef as well as for milk. The quantity and quality of the beef are affected by the breed, feed and management—just the same as milk. If the Xmas fat stock show steer or cow is to be taken as the standard for beef, the discussion on the general purpose cow has a different basis from the standard of beef based upon a rationally fed and managed animal. The intrinsic, nutritive value of beef is derived from the muscular development of the animal, and not from the fat, just the same as the genuine value of milk is based upon the solids it contains and not upon its water.

Now it is plain from this exposition of the question that the general purpose cow cannot be discussed without first considering the advanced or backward state of intelligence of the people amongst which the cow is situated; for in countries where the milk is tested and paid for according to quality, the milk, butter and cheese