EXTRACTION OF POTASH FROM WOOL IN THE GRENSE.

The apparatus represented in the subjoined cut is the invention of Mr. H. Fischer, engineer, of Hanover, and it is claimed for it that it gives as concentrated a lye as possible, and requires little labor.

Four vats, A, B, C, D, are suspended between two rings, F, which are movable on the axle, K, and oscillate freely on the axis to which they are suspended. One of the rings, F, is fitted with a toothed crown, or crown wheel, with which is connected a small crank, which is so arranged that a single laborer can set the whole apparatus in motion. In Fig. 1, it will be seen that the reservoir, A, has a false bottom, and is fitted with a cock and tube, by means of which the lye is run off into the vat B. Figs. 3, 4, 5, and 6 show the working of the apparatus. The figures placed by the side of the numerals 1., 2., etc., which represent water, show how many times that same water has served to wash the wool in its passage through the apparatus; in the same manner the letters o, p, q, which refer to the wool, are accompanied by figures indicating how many times each portion has been already washed by the water; o, representing raw wool; o, wool once washed, and so on. In Fig. 6, in A, is wool already washed four times.

The operation is as follows:
1. Fill A with pure water, I.; then, at the end of a certain time—
2. The water I., is turned into the vat B, and the apparatus moved till B occupies the place of A.
3. Empty A, and fill it with raw wool; turn into vat C the water I., and the pure water, II., into B.
4. Run off the water, I., from C into D, and II, from B to C; then turn the apparatus one quarter round (Fig. 5).

5. Direct the water, I., from D to A on the raw wool, O., and II, from C to D, and turn the pure water III., into C; empty the vat B, and fill it with raw wool, p, o.
6. Let off the water, I., from A into a reservoir; II, from D to A; and III, from C to D; then turn the apparatus for the third time (Fig. 5).
7. The water II., is turned from A to B, III., from D to A, and B is filled with fresh water, IV.; discharge the exhausted wool from C, and fill it with fresh wool, q.
8. The water II., comes from B to reservoir III., from A to B, and IV, from D to A; then the apparatus is turned for the fourth time.
9. The water III., is directed from B to C, on to the raw wool, q, IV, from A to III, to wash the wool, p, for the third time; and, as before, the pure water is turned into A on the wool.
10. D is then filled with raw wool, p, and so on.

The water L is thus successively in contact with the wool in the vats A, B, C, D, and A and H in B, C, D, A, B, etc., so that the operation is repeated five times. Except for the transport of the wool, one man suffices for the work.

According to Maunne, a fleece weighing four kilograms contains 400 grammes of grease, in which is 100 grams of pure carbonate of potash; and, according to data published since, 1,000 kilograms of wool yield 140 to 180 kilos. of dry salt, or 70 to 90 kilos. of potash. Fitches only gives 200 grammes of grease per fleece. At the wool-washing works of Dillen, near Hanover, they only get 152 kilos. of raw potash out of 5 tons of wool, and it contains 80 per cent of carbonate. In

1867, Maunne & Rogetlet produced at their works at Rheims and Elfeur 150 tons of pure potash from grease, and there are similar works at Houemb, Antwerp, Ixen, Bruges, Hanover, Dillen and Rhéime.—Textile Manufacturer.