small quantities to the United States. There is, however, a more expensive variety of shells, brought from Australia, and costing about 60 cents a pound First-class buttons, opera glasses and umbrella handles are manufactured from them. Cheaper varieties from the Fiji Islands are sold for 25 cents per pound, and a still more inexpensive kind is grown in Panama and sold here for 20 cents. The poorest shells used for inferior grades of buttons are grown in Persia, and sold to manufacturers at the low figure of 3 cents.

The main cause to which can be attributed the scarcity of raw materials is that the beds are in a worked out condition. When business was prosperous, in order to meet the demand, pearl producers drained the beds to their utmost capacity, and, with a lack of foresight which has cost them dearly, neglected to allow the growing shells to reach maturity. As an example of such a lamentable state of affairs, dealers here cite the case of Egyptian shells. I understand that Egyptian shells were once comparatively plentiful, but so popular did they grow that they were gathered irrespective of the growth they had attained. Hence Egyptian shells can seldom be obtained except at unreasonable figures.

The rise and fall of the button trade is but an instance of the unstable condition of many lines of Austrian manufacture. The Austrian manufacturer of to-day, it seems, is a very different sort of man from what he used to be. The Germans are forging to the front with unquenchable energy, and in their strides for new fields are pushing the Austrian to the wall. Fortunately, the government is coming to realize the bad state of affairs. It is putting forth admirable efforts toward the establishment of new trade schools and kindred institutions that will tend both to improve the quality of manufactures and to do away with antiquated foreign trade methods, and if producers do not shove forward a peg or two under this new stimulant, they will have themselves to blame for Austria's future commercial position among manufacturing nations.

FLOCKING.

The flocking process is one of the most important parts of fulling. Not only does it require some additional calculations, but with them also keen judgment, for the material out of which the flocks are made has an important bearing on the subject. As to the calculations necessary we refer our readers to the Fuller's Ready Tables, for the whole matter is there treated in a most comprehensive manner, says a writer in the Boston Journal of Commerce. So we will take it for granted that the amount of flocks which the goods require is known, and our chief aim will therefore be to devise the best way of getting them on the goods. There are several methods in use among finishers, all of which have their merits and some also their drawbacks, and among them we first find the dry flocking method as employed by some. The greatest benefit ascribed to this method is the even distribution of the flocks all over the goods, this being made possible by reason of the goods being dry. This plan will word admirably on some classes of goods, and may be employed on kerseys, meltons and such like fabrics. On cassimeres we should not want to advocate the use of this method for the reason that too much of the flocks are apt to find their way through the fabric to the face, and if fancy colors are present, especially of the lighter kinds, these are apt to appear muddled and will lack the brightness which they are intended to possess when they are made part of the fabric. Then again it will require extra time in the running of the goods, for it will surely take a quarter of an hour to distribute the flocks properly, and these fifteen minutes added to the regular running time will be found to be an appreciable item in case we are driven. We therefore cannot see any great benefit to be derived from dry flocking, and although we have tried it several times we never could find the results sufficiently good to warrant its adoption as a permanent method. When flocking dry, the amount of flocks required for the goods is put on them immediately after starting the mill, and after they are well distributed the soap is added to wet the goods down. It is claimed that by this way of doing the goods do not get a setback the same as they do when the flocks are applied when the goods are wet and begin to felt. However this may be, we cannot find anything in our experience which will bear out the assumption. After the goods are wet down the proceeding is much the same as described in the fulling process.

We next come to the wet flocking method, and here the greatest objection raised is that stated above. Of course if we intend to proceed in the wet flocking process the same as in the dry, the objection pointed out will no doubt hold good, and even then we can see no further harm done than a trifle more time required in the process, which is about equal to from five to ten minutes. But we do not intend to treat the goods to any such process as that, for when flocking wet the greatest advantage of the method is lost if we should dump the whole amount of flocks on the goods and then let them run. Therefore we take a small amount of the flocks required to be put on and sprinkle them on the goods lightly, and as soon as these have been taken up we can give them some more, and thus proceed till all of the flocks are put on. This again is objected to as being too much work, but for all that it is the only reasonable way to flock goods, and weight can be made with less flocks than with any other method. We think that the amount of work required is the greatest objection urged against this way of doing, but we have yet to find a way of getting goods finished in an A1 fashion without having to use considerable work. The flocks thus put on will stick better to the goods and become part of the fabric, because the flocks are not fed to the goods until the goods are in a condition to take care of them, and that is only when they become heated, for it is only then that felting begins. If to this is added a little felting capacity in the flock it can be easily seen that the process must be successful. Flocks which do not possess the felting qualities are not fit to use in any sense, but we would rather risk them on the goods, if they are put on in the way stated, and at the proper time, than to take a much better flock and put them on dry. We think that between the two the first named would be the better fabric all around. Not only will the colors be brighter, but the flocks will have been felted into the goods in such a manner that they will stay and not drop out at the first handling the goods get after they become dry. One of the best tests as to the truth of this may be found in the looks of the dry finishing rooms where the two methods are in operation. Where the dry flocking is carried on it may be noticed that the tables, etc., become quickly covered with flocks as soon as they are not in use, and we will be continually brushing tables. This shows that the flocks have not been incorporated into the goods enough to hold them, and as soon as they become dry the sifting-out process begins to stop only when the goods are worn out. No such state of things will be found where the wet flocking method is in use unless the quality of the flocks is entirely below what might be expected, but given the same quality of flocks as in the dry process there will be no sifting out, at least while the goods are in the mill, and not for quite a while after the goods have begun to wear.

Another method of flocking is half dry, half wet, and this method is used only when the amount to be put on the goods is excessively large. When that is the case, it would take too long to apply the flocks as described in the wet flocking method, for the goods would be up in width and length long before we had got them all on. Therefore we take the half of the flocks and put them on dry, and the other half as described before. We do not do this because it is the best way of doing the work, for there is no best way to choose, it is simply the only way the flocks can be got on, and for that reason we do it. While it may not make much difference on all-wool goods which are flocked in reasonable amount, how the flocks are put on, with the exception of cassimeres, noted above, it becomes quite an important item on the lower grades, that is, cotton-warp goods. The wet process should only be employed on them as giving the best results, but as this class of goods are cheap the amount of work required to do the flocking right is often grudged, and they generally receive the treatment which is of the least benefit to them. In our next we will treat of the gigging process.

CARE IN DYEING.

The perfection in dyeing any kind of stock can be accomplished only by using every possible caution. There is a difference of opinion among superintendents as to whether each kettle of stock should be perfectly even in color and matched to sample, or whether it is sufficient to have the stock, when picked up, blend to make the desired shade. The perfect matching of a color in the dyehouse is a very