other of these should be checked by or be found in correspondence with the credit of another.

No. 5.

DISTILLATION.

Time—3 Hours.

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1. In the distillation of spirits from grain which is not malted, how many operations are necessary—name them in the order in which they occur?

2. What is the minimum and maximum time necessary to complete the operations of mashing and fermentation respectively?

3. What kinds of grain are commonly used, and what proportions, in the manufacture of spirits?

4. When and where are the spirits tested and charged for duty?

5. In the ordinary supervision of a distillery, what are the principal daily precautions which should be taken by the officer in charge for the prevention of fraud?

6. Name the apparatus used, and the precaution which should be taken to prevent fraud in connection with the operation necessary to the completion of the manufacture of spirits, after the charge for duty has been made?

7. Describe the successive changes as regards the taste of the wash which occur during the process of fermentation?

8. What do you understand by the "*attenuation*" of beer or wash?

9. Suppose a tun of wash to become attenuated to the gravity of water, would you argue from this that all the saccharine matter had been converted into alcohol?

10. What causes may arrest the process of conversion?

11. If worts are allowed to remain in the fermenting tun for a considerable period after the available sugar has been converted, what change may be expected to take place?

12. Can absolute, that is pure anhydrous alcohol, be obtained by ordinary distillation?

13. Give approximately the specific gravities of water, proof spirit and alcohol a 60°.

14. What do you understand by the terms "Testing Alcoholic Value," "Special Tests" and "Testing for Duty," respectively?

15. Describe the method of obtaining the alcoholic value of a quantity of beer, by means of the ordinary apparatus used in distilleries worked with intermittent stills, without having recourse to the close receiver.