
paper: lined paper, one side. 7-3/4" wide by 12-1/5" high
the paper was folded into quarters.

Physiology

1. Alcohol is clear colorless volatile inflammable liquid it has a burning taste and a penetrating odor. It burns with a pale bluish flame with out smoke but intense heat hence it is used in spirit lamps. It cannot be frozen but 100 degrees below zero it becomes thick and it is used in thermometers and spirit levels. It is lighter than water. It has specific gravity of .809. Alcohol is a solvent of oils and resins. Oils are dissolved in alcohol to make essences.
2. If any substance containing sugar is allowed to ferment there is a rearrangement of the hydrogen oxygen and carbon in such a manner as to form carbonic acid gas and alcohol. Part of the carbonic acid gas passes off and part remains to make it sparkle in the liquid.
3. Brandy is obtained by distilling wine.
4. Dr. Ray found that entire abstinence from alcohol is necessary in the far north. He also said that when any person swallows a drink of spirits that, that person's work is done for that day and he said that alcohol as a beverage when a person has work to do is entirely out of the question.
5. The irritating effect of alcohol upon the mucus membrane is first noticed in deranged digestive action, loss of appetite and finally a change in the very structure of the stomach itself, principally in thickening of the walls. In experience with St. Marlin it was found that alcohol overcharges the mucus membrane of the stomach with blood. New drops of blood were eluded from the surface. The secretions were thick unnatural and bloody.