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TEACHING GUIDE
ON
ALCOHOL



STATE OF IOWA
OFFICE OF THE GOVERNOR
DES MOINES

HAROLD E. HUGHES
GOVERNOR

Dear Teacher:

It is now generally recognized that alcoholism is one of our major health problems, ranking fourth in the order of serious diseases. Only heart disease, cancer and mental illness are considered by the U. S. Public Health Service to be worse predators on our nation's human resources.

Since 1957, when medical science first conceded that alcoholism is a "treatable illness," a great deal has been learned about the effects of alcohol on the individual and on society. We have learned, for instance, that one out of every 20 persons who begin drinking alcoholic beverages will fall victim to alcoholism. Among the others, we have evidence of the damage that can result from lapses of judgment due to excessive social drinking.

From this new knowledge, government projects have been developed at state and local levels to attack all facets of the problem from cause to effect, and treatments have been discovered that are leading to recovery from the disease.

However, a great deal needs to be done to convey to our young people--most of whom will be exposed to alcoholic beverages at some point in their lives--the potential effects of alcohol so they better understand its hazards.

This book, prepared by the Iowa State Commission on Alcoholism, contains the core of the most pertinent facts. With your interpretation and inspiration, these facts can become the vivid impressions that are so important to this undertaking.

Very truly yours,

HAROLD E. HUGHES

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Des Moines, Iowa

IOWA TEACHING GUIDE ON ALCOHOL

Prepared by

IOWA STATE COMMISSION ON
ALCOHOLISM

IOWA STATE DEPARTMENT
OF HEALTH

Published 1967

INTRODUCTION

The material in this booklet has been prepared for the purpose of creating thoughtful discussions of the problems associated with the use of alcohol. An attempt has been made to collect data on the "Iowa Law" with exact wording on the use of alcohol, and data on some of the problems of the affect on the individual and society that are created by its misuse.

Poster art has been developed and included to initiate questions and discussions in the classroom and among groups of students and adults. Though the material in this booklet may be used as basic reference, it is hoped that students of the problems associated with the use use of alcohol will use the information that may be selected from the reference section.

To carry out the intent of the "Iowa Law", this material may be used for instruction at the junior high school and senior high school level in classes of science, health and physical education, social studies and drivers training. The reactions to this type of material by the users and suggestions for further development of the content are welcomed.

Chapter I

IOWA LAWS RELATING TO ALCOHOL

A. The Iowa Law Regarding Alcohol Education In The Public Schools

The Iowa Code States: Courses of Study, Chapter 280, Paragraph 10, 1966 Code of Iowa, **Stimulants, Narcotics, and Poisons**. The board shall require all teachers to give and all scholars to receive instruction in physiology and hygiene, which study in every division of the subject shall include the effects upon the human system of alcoholic stimulants, narcotics, and poisonous substances. The instruction in this branch shall of its kind be as direct and specific as that given in other essential branches, and each scholar shall be required to complete the part of such study in his class or grade before being advanced to the next higher, and before being credited with having completed the study of the subject. (C97, §2775; C24, 27, 31, 35, 39, §4259; C46, 50, 54, 58, 62, §280.10)

B. The Iowa Law Regarding Minors (Possession, Consumption, Etc.)

123.43 Persons under twenty-one years of age. Except in the case of liquor given or dispensed to a person under the age of twenty-one years within a private home and with the knowledge and consent of the parent or guardian for beverage or medicinal purposes or as administered to him by either the physician or dentist for medicinal purposes no person shall sell, give, or otherwise supply liquor to any such person under the age of twenty-one years, or knowingly permit any person under that age to consume alcoholic liquors. (C35, §1921-f43; C39, §1921.043; C46, 50, 54, 58, 6a, §123.43; 61GA, ch 155§2)

123.45 Evidence of legal age demanded.

1. Upon attempt to purchase alcoholic liquor in any state liquor store or from any special distributor by any person who appears to the vendor or special distributor to be under twenty-one years of age, such vendor or special distributor shall demand and the prospective purchaser upon such demand shall display satisfactory evidence that such purchaser is twenty-one years of age or over.

2. Any person who presents to any vendor or special distributor falsified evidence of age as provided in subsection 1 of this section shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than one hundred dollars and not more than three hundred dollars or imprisoned in the county jail for not more than thirty days or by both such fine and imprisonment. (60 GA, ch 116, §11)

123.46,3 Miscellaneous prohibitions.

3. No person under the age of twenty-one years shall misrepresent his or her age for the purpose of purchasing or attempting to purchase any alcoholic beverage from any licensee. If any person under the age of twenty-one years shall misrepresent his or her age, and the licensee having established that he made reasonable inquiry to determine whether such prospective purchaser is over the age of twenty-one years, such licensee shall not be guilty of selling liquor to minors.

Whoever violates any of the provisions of this section shall be subject to a fine of not to exceed one hundred dollars or to imprisonment for not more than thirty days in the county jail or to both such fine and imprisonment.

The conviction of any liquor control license holder for the violation of any of the provisions of this section shall be grounds for the suspension or revocation of the license by the commission or the issuing authority.

However, if any liquor control license holder shall be convicted of any violation of paragraphs "a", "d", "e", or "h" of subsection 2 of this section, the liquor control license shall automatically be revoked and shall immediately be surrendered by the holder, and the bond of the license holder shall be forfeited to the commission. (C35, §1921-f46; C39, §1921.046; C46, 50, 54, 58, 62, §123.46; 60GA, ch114, §16, ch116, §9; 61GA, ch148, §1)

124.2 Definitions, Paragraph 10. "Beer" for the purpose of this chapter shall mean

"Beer" for the purpose of this chapter shall mean any liquid capable of being used for beverage purposes made by the fermentation of an infusion of potable water of barley, malt and hops, with or without unmalted grains or decorticated and degerminated grains containing not more than four per cent of alcohol by weight.

124.20, 4, 5 Prohibited sales, conduct and advertisements.

4. No minor shall purchase, obtain, or attempt to purchase or obtain any alcoholic beverage or beer from any person, except within a private home and with the knowledge and consent of the parent or guardian of said minor.

5. No minor shall misrepresent his or her age for the purposes of purchasing, obtaining, or attempting to purchase or obtain any alcoholic beverage or beer. If any minor shall misrepresent his or her age, and if the permit holder shall establish that he made reasonable inquiry to determine whether such prospective purchaser is a minor, the permit holder shall not be guilty of selling to a minor.

125.33 Persons under twenty-one years of age. Any person under the age of twenty-one years who shall individually or jointly have in his or their possession or control beer as defined in section 124.2 or liquor shall be subject to a fine of not more than one hundred dollars or imprisonment in the county jail for not more than thirty days. The provisions of this section shall not apply to any person under the age of twenty-one years who:

1. Is provided liquor as permitted in section 123.43.

2. Is a regular employee of a class "A" "B" or "C" permit holder as defined in chapter 124 while performing regular duties during the course of employment. (61GA, ch 155, §1)

C. The Iowa Law Regarding Adults (Drunkenness and Related Alcohol Problems)

123.1 Public policy declared. This chapter shall be cited as the "Iowa Liquor Control Act", and shall be deemed an exercise of the police power of the state, for the protection of the welfare, health, peace, morals and safety of the people of the state, and all its provisions shall be liberally construed for the accomplishment of that purpose, and it is declared to be the public policy that the traffic in alcoholic liquors is so affected with a public interest that it should be regulated to the extent of prohibiting all traffic in them, except as hereinafter provided for in this chapter (C35, §1921-f1; C39, §1921.001; C46, 50, 54, 58, §123.1)

123.3 General Prohibition. It shall be unlawful to manufacture for sale, sell, offer or keep for sale, possess and/or transport vinous, fermented, spirituous, or alcoholic liquor, except beer as defined in chapter 124, or as the same may hereafter be amended for any purpose whatsoever, except upon the terms, conditions, limitations and restrictions as set forth here (C35, §1921-f3; C39, §1921.003; C46, 50, 54, 58, §123.3)

123.4 Sacramental wines. Nothing in this chapter shall affect the purchase or use of sacramental wines to be used exclusively for sacramental purposes. (C35, §1921-f4; C39, §1921.004; 046, 50, 54, 58, §123.4)

123.18. State liquor stores. The commission shall establish and maintain in any city or incorporated town which the commission may deem advisable, a state liquor store or stores or special distributors, as provided for in section 123.19, for storage and sale of liquor in accordance with the provisions of this chapter and the regulations made thereunder. The commission may, from time to time, as determined by it, fix the prices of the different classes, varieties, or brands of liquor to be sold. The commission may allow a discount from the sale prices as established by the commission for quantity purchases of liquor by the holder of a liquor control license only. (C35, §1921-f18; C39, §1921.018; C46, 50, 54, 58, 62, §123.18; 61GA, ch 142, §)

123.19 Special distributors.

1. In cities and towns where the establishment of a state liquor store, under the provisions of this chapter, does not seem advisable, the commission may select a special distributor, who shall have been in business in and a resident of such city or town not less than two years immediately prior to such appointment, to sell alcoholic liquors for consumption off the premises; provided, however, that in no case such special distributor shall be the holder of a class "B" permit to sell beer as provided in chapter 124, nor shall such special distributor be granted such beer permit while being such distributor.

2. Special distributors shall be paid a sum to be fixed by the commission, but in no event shall this sum be in excess of nine hundred dollars per annum. All alcoholic liquors sold by such distributors shall be sold in the original package at the price fixed by the commission, without profit to the distributor and in accordance with the rules and regulations of the commission.

3. At any time, if in the judgment of the commission it shall appear advisable, the commission may establish a state liquor store in such city or town to replace the special distributor.

4. If after a state liquor store has been in operation in any city or town, such store should show a loss to the state, the commission may discontinue such store and select a special distributor in accordance with the provisions of this chapter.

5. No special distributor shall be selected in any city or town where there is a state liquor store in operation (C35, §1921-f19; C39, §1921.019; C46, 50, 54, 58, §123.19)

123.27 Permits and liquor-by-the-drink licenses. Paragraph b.

Liquor control licenses issued under this chapter shall be of the following classes:

a. Class "A". A Class "A" liquor control license may be issued to a club and shall authorize the holder thereof to purchase spirits and wine from the commission only, and to sell alcoholic beverages so purchased to bona fide members and their guests by the individual drink for consumption on the premises only.

b. Class "B". A Class "B" liquor control license may be issued to a hotel or motel as herein defined and shall authorize the holder thereof to purchase spirits and wine from the commission only, and to sell alcoholic beverages so purchased to patrons by the individual drink for consumption on the premises only. Each such license shall be effective throughout the premises described in the application therefor, but a duplicate of such license shall be posted in each room wherein such beverages are dispensed.

c. Class "C". A Class "C" liquor control license may be issued to a commercial establishment but must be issued in the name of the individual or individuals who actually own the entire business and shall authorize the holder or holders thereof to purchase spirits and wine from the commission only, and to sell alcoholic beverages so purchased to patrons by the individual drink for consumption on the premises only.

d. Class "D". A Class "D" liquor control license may be issued to a railway corporation, to an air common carrier, and to passenger-carrying boats and ships for hire with a capacity of twenty-five persons or more operating in inland or boundary waters, and shall authorize the holder thereof to sell or furnish alcoholic beverages to passengers for consumption only on trains, watercraft as described herein, or aircraft, respectively. Each such license shall be good throughout the state as a state license. Only one such license shall be required for all trains or aircraft operated in the state by the licensee, but a duplicate of such license issued shall be posted in each railroad car or aircraft in which such beverages are sold. Such licensee shall keep a record of all alcoholic beverages sold or furnished in the state of Iowa, and on or before the last day of each month shall render a report to the commission showing the quantities of the various kinds of alcoholic beverages so sold or furnished during the preceding month, which report shall be accompanied by payment of appropriate taxes owing.

123.42 Consumption in public places—intoxication. It is hereby made unlawful for any person to use or consume any alcoholic liquors upon the public streets or highways, or in any public place, except premises covered by a liquor control license, and no person shall be intoxicated nor simulate intoxication in a public place; and any person violating any provisions of this section shall be fined not to exceed one hundred dollars or sentenced not to exceed thirty days in the county jail. (C35, §1921-f42; C39, §1921.042; C46, 50, 54, 58, 62, §123.42; 60GA, ch114, §15)

123.46 Miscellaneous prohibitions.

1. No person shall sell, dispense, or give to any intoxicated person, or one simulating intoxication, any alcoholic liquors.

2. No person or club holding a liquor control license under this chapter, his agents, or employees, shall:

a. Knowingly permit any gaming, gambling, solicitation for immoral purposes, immoral or disorderly conduct on the licensed premises, or

b. Sell or dispense any alcoholic beverage on the licensed premises or permit the consumption thereon between the hours of two a.m. and seven a.m. on any weekday, and between the hours of on a.m. on Sunday and seven a.m. on the following Monday, or

c. Sell alcoholic beverages to any person on credit, except that this provision shall not apply to sales by a club to its members nor to sales by a hotel or motel to bona fide registered guests, or with a bona fide credit card, or

d. Keep on the licensed premises any spirits or wine in any container except the original package purchased from the commission, except mixed drinks or cocktails mixed on the premises for immediate consumption, provided that this shall not apply to common carriers holding a class 'D' liquor control license, or

e. Reuse for the packaging of any spirits or wine any bottle or other container which has been used for the packaging of alcoholic beverages possess any such bottle or container, or in any manner alter or increase, or by the addition thereto of any substance, any portion of the original contents remaining in such bottle or container in which any portion of the original contents has been so altered or increased, or liquor on the premises where such liquor is sold, or

f. Employ any person under the age of twenty-one years in the handling of liquor on the premises where such liquor is sold, or

g. Allow any person other than the license holder or his employees to use or keep on the licenses premises any spirits or wine in any bottle or other container which is designed for the transporting of alcoholic beverages, provided that this shall not apply to the lodging quarters of a class 'B' liquor control licensee, or to common carriers holding a class 'D' liquor control license,

h. Knowingly sell, give, or otherwise supply any alcoholic beverage or beer to any person under the age of twenty-one years, or knowingly permit any person under the age of twenty-one years to consume any alcoholic beverage or beer.

3. No person under the age of twenty-one years shall misrepresent his or her age for the purpose of attempting to purchase any alcoholic beverage from any licensee. If any person under the age of twenty-one years shall misrepresent his or her age, and the licensee having established that he made reasonable inquiry to determine whether such prospective purchaser is over the age of twenty-one years, such licensee shall not be guilty of selling liquor to minors.

Whoever violates any of the provisions of this section shall be subject to a fine of not to exceed one hundred dollars to imprisonment for not more than thirty days in the county jail or to both such fine and imprisonment.

The conviction of any liquor control license holder for the violation of any of the provisions of this section shall be grounds for the suspension or revocation of the license by the commission or the issuing authority.

However, if any liquor control license holder shall be convicted of any violation of paragraphs (a), (d), (e), or (h) of subsection two of this section, the liquor control license shall automatically be revoked and shall immediately be surrendered by the holder, and the bond of the license holder shall be forfeited to the commission. (C35, §1921-f46; C39, §1921.046; C46, 50, 54, 58, 62, §123.46; 60GA, ch114, §16, ch 116, §9; 61GA, ch 148, §1)

123.47 Advertisements. Except as permitted by federal statute and regulations, there shall be no public advertisement or advertising of alcoholic liquors in any manner or form within the state.

1. No person shall publish, exhibit, or display or permit to be displayed any other advertisement or form of advertisement, or announcement, publication, or price list of, or concerning any alcoholic liquors, or where, or from whom the same may be purchased or obtained, unless permitted so to do by the regulations enacted by the commission and then only in strict accordance with such regulations.

2. This section of the chapter shall not apply, however:

- a. To the liquor control commission.
- b. To the correspondence, or telegrams, or general communications of the commission, or its agents, servants, and employees.
- c. To the receipt or transmission of a telegram or telegraphic copy in the ordinary course of the business of such agents, servants, or employees of any telegraph company. (C35, §1921-f47; C39, §1921-047; C46, 50, 54, 58, 62, §123.47)

123.54 State Monopoly. There is hereby granted unto said commission the sole and exclusive right of importation, into the state, of all forms of alcoholic liquor, except as otherwise provided in this chapter, and no person, partnership club, corporation, or association shall so import any such alcoholic liquor, and no distillery shall sell any such alcoholic liquor within the state to any person, partnership, club, corporation, or association but only to the commission, except as otherwise provided in this chapter, the intent hereof being to vest in said commission exclusive control within the state both as purchaser and vendor of all alcoholic liquor sold by such distilleries within the state or imported therein, except beer as referred to in this chapter 124 and amendments thereto, and except as otherwise provided in this chapter. (C35, §1921-f54; C39, §1921.054; C46, 50, 54, 58, 62, §123.54)

123.59 "Bootlegger" defined. Any person who shall, by himself, or his employee, servant, or agent, for himself or any person, company, or corporation, keep or carry around on his person, or in a vehicle, or leave in a place for another to secure, any alcoholic liquor as herein defined, with intent to sell or dispense of the same by gift or otherwise in violation of law, or who shall within this state, in any manner, directly or indirectly, solicit, take, or accept any order for the purchase, sale, shipment, or delivery of such alcoholic liquors in violation of law, or aid in the delivery and distribution of any alcoholic liquors so ordered or shipped, or who shall in any manner procure for, or sell or give any alcoholic liquors to any minor or interdicted person, for any purpose except as authorized and permitted in this chapter, shall be termed a bootlegger and upon conviction shall be sentenced to the county jail or the penitentiary, in the discretion of the court, for a period not exceeding one year. (C35, §1921-f59; C39, §1921.059; C46, 50, 54, 58, 62, §123.59); 60GA, ch114, §20)

123.60 Nuisances. The building, erection or place, or the ground itself, in or upon which the unlawful manufacture or sale, or keeping with intent to sell, use or give away, any alcoholic liquors is carried on or continued or exists, and any vehicle or other means of conveyance used in transporting such liquor in violation of law, and the furniture, fixtures, vessels and with contents, kept or used in connection therewith, are declared a nuisance and shall be abated as in this chapter provided. (C35, §1921-f60; C39, §1921-060; C46, 50, 54, 58, 62, §123.60; 60 GA, ch114, §21)

123.71 Injunction against bootlegger. A bootlegger as defined in this chapter may be restrained by injunction from doing or continuing to do any of the acts prohibited herein, and all the proceedings for injunctions, temporary and permanent, and for punishments for violation of the same as prescribed herein, shall be applicable to such person, company, or corporation, and the fact that an offender has no known or permanent place of business, or base of supplies, or quits the business after the commencement of an action, shall not prevent a temporary or permanent injunction, as the case may be, from issuing. (C35, §1921-f71; C39, §1921.071; C46, 50, 54, 58, 62, §123.71)

123.91 Penalties generally. Unless other penalties are herein provided, any person who violates any of the provisions of this chapter, or who makes a false statement concerning any material fact in submitting an application for a permit or license, shall be punished by a fine of not less than three hundred dollars nor more than one thousand dollars, or by imprisonment in the county jail for not less than three months nor more than one year, or by both such fine and imprisonment. (C35, §1921-f91; C39, §1921.091; C46, 50, 54, 58, 62, §123.91)

123.93 Duty of enforcement division. In every county the enforcement division will constitute the head of the enforcement provision for the liquor control commission. The state department of public safety, county attorney, the sheriff and his deputy or deputies, and the police department of every city, including the day and night marshal of any incorporated town, shall be supplementary aids to such enforcement division.

Any neglect, misfeasance, or malfeasance shown by any peace officer included in this section will be sufficient cause for his removal as provided for by the statutes of the state.

Nothing in this section shall be construed to remove or lessen the duties or responsibilities of any county attorney or peace officer with respect to law enforcement. (C35, §1921-f94; C39, §1921.093; C46, 50, 54, 58, 62, §123.93; 60GA, ch 114, §22)

D. Alcoholism Study Commission

123A.1 Definitions. 1. "Alcoholic" shall mean any person who chronically and habitually uses alcoholic beverages to the extent that he has lost the power of self-control with respect to the use of such beverages, or while chronically or habitually under the influence of alcoholic beverages endangers public morals, health, safety, or welfare; 2. "Commission" shall mean the Iowa commission on alcoholism; 3. "Alcoholism" shall mean the pathological condition attendant upon the excessive and habitual use of alcoholic beverages. (62GA, §123A.1)

123A.2 Commission created. There is hereby established, within the state department of health, the Iowa commission on alcoholism. The commission shall consist of the following members. the commissioner of public health and eight other members to be appointed by the governor, at least two of whom shall be physicians, one a member of the general assembly, one a representative of industry, one an attorney, one a member of the clergy, and two recovered alcoholics. (C62, §123A.2; 61GA, ch1, §64)

123A.5 Duties. The commission shall:

1. Study alcoholism and its problems, including methods and facilities available for the care, custody, detention, treatment, employment, and rehabilitation of resident alcoholics;

2. Promote meetings and programs for the discussion of alcoholism or any of its aspects, disseminate information on the subject of alcoholism for the guidance and assistance of individuals, courts, and public or private agencies for the prevention of alcoholism, and inform and educate the general public on problems of alcoholism, its prevention and treatment, to the end that alcoholism may be prevented and that persons suffering from alcoholism may be disposed to seek available treatment;
3. Make every effort to evaluate and assess the program from its inception;
4. Refer for examination, diagnosis, guidance and treatment insofar as funds and facilities permit, any resident of the state coming to the commission of his own volition for advice and guidance;
5. Establish, insofar as possible, local alcoholic commissions which would perform the same duties as the state alcoholic commission;
6. Recommend the establishment of policies and rules governing the acceptance, care, and treatment of alcoholics;
7. Employ such assistants as may be necessary;
8. Report to the governor and the legislature biennially incorporating such recommendations as it may deem advisable. (C62, §123A.5)

SUMMARY OF CHAPTER I

I. MINORS—(PERSONS UNDER TWENTY-ONE)

Possession of Beer or Liquor

125.33 A jail sentence of up to thirty (30) days or a fine of up to one hundred (100) dollars is provided in the new law for a person under twenty-one (21) who has liquor or beer in his possession or control.

124.20,4 Under the Iowa Beer Law it is unlawful for minors to purchase, obtain, or attempt to purchase or obtain any alcoholic beverage or beer.

123.46,5 Under the Iowa Liquor Control Act it is unlawful for a minor to misrepresent his or her age to purchase or attempt to purchase liquor from a liquor licensee.

124.20,5 Nor shall a minor misrepresent his or her age for the purpose of purchasing, obtaining, or attempting to purchase or obtain any alcoholic beverage or beer.

The minor is subject to a fine up to one hundred (100) dollars or thirty (30) days in jail.

123.45 Further, a minor is prohibited from presenting falsified evidence of age to a state liquor store vendor or special distributor.

The minor is then subject to a fine not less than one hundred (100) dollars or more than three hundred (300) dollars and/or up to thirty (30) days in jail.

II. THE GENERAL PUBLIC

124.20,3 The Iowa Beer Law prohibits any person from knowingly selling, giving, supplying, or offering to a person under twenty-one (21) or to knowingly permit a person under twenty-one (21) to purchase or consume (on the premises of a Class "B" or "C" beer permit holder) any alcoholic beverage or beer.

And, it is unlawful for any person to offer beer to a person under twenty-one (21) except in a private home with the knowledge and consent of the parent or guardian.

123.43 The Iowa Liquor Control Act prohibits any person (except parent, guardian, a physician, or dentist) from selling, or otherwise supplying liquor to a person under twenty-one (21), or to knowingly consume alcoholic liquor.

123.91 The violators of these laws are subject to a fine of not less than three hundred (300) dollars or more than one thousand (1,000) dollars and/or not less than three (3) months or more than one (1) year in the county jail.

III. LIQUOR LICENSEES AND RETAIL BEER PERMIT HOLDERS

In addition to the prohibitions applicable to the General Public, the following applies to:

Liquor Licensees

123.46,2,f You may not employ a person under twenty-one (21) to handle liquor.

123.46,2,h You are prohibited from knowingly selling, giving, or otherwise supplying alcoholic beverages or beer to any person under twenty-one (21), or knowingly permit such persons to consume alcoholic beverages or beer.

123.46,5 You are subject to a fine up to one hundred (100) dollars and/or imprisonment up to thirty (30) days. In addition, your Iowa Liquor Control License may be revoked and your \$5,000 bond forfeited.

Beer Permit Holders

124.21 You are prohibited from employing a person under twenty-one (21) to serve beer where the business of selling beer constitutes more than 50% of your gross business transacted.

124.37 You are subject to a fine of not less than three hundred (300) dollars not more than one thousand (1,000) dollars and/or imprisonment in the county jail of not less than three (3) months nor more than one (1) year, and your permit may be suspended or revoked and your bond forfeited. Further, your permit will be revoked and your bond forfeited if you or your agent knowingly sell, give, supply, or offer any alcoholic beverage or beer to any minor, and if so revoked, neither you or your spouse shall ever again be able to hold a beer permit and no permit will be issued to cover the premises for one (1) year.

Chapter II

HISTORY OF ALCOHOL CONTROL AND LEGISLATION IN IOWA

Alcohol has been used as a beverage by a certain portion of the inhabitants of what is now Iowa ever since the first settlers entered the area carrying with them their European drinking heritage. Throughout the history of the state, the public has been rather evenly divided between drinkers and abstainers.

While public sentiment undoubtedly has exerted much informal restraint on alcohol use, it has not precluded intemperate drinking, and there has always been enough abuse of the beverage to arouse public reaction. Consequently, the state has resorted to more formal controls. Laws and police action, to restrict the nature and degree of legal controls, have always been matters of controversy, confounded by the fact that liquor is an important source of tax revenue enjoyed by "wets" and "drys" alike. Moreover, alcohol has always provided a convenient if overly simple explanation of a great variety of social evils.

The history of the state's liquor control legislation begins before the turn of the nineteenth century. Prior to 1805 when Iowa was still part of the old Northwest Territory there were few liquor laws. The existing laws were designed to raise revenue and protect the community against intoxicated Indians and soldiers and were not an expression of strong moral sentiments.

During the period (1805-1838) when Iowa was first part of the Michigan and then part of the Wisconsin Territory, about two dozen regulatory laws were passed reflecting a rising sentiment against intemperance. Sales were forbidden on Sundays and in the vicinity of religious gatherings and to minors. Punishment for habitual drunkenness included whipping and a term in the house of correction. Here, also, is found the first law against drunk driving. Owners of stage coaches were forbidden to employ drivers addicted to strong drink. Thus, by the time Iowa became a separate territory in 1838, there was a fairly comprehensive code of liquor laws and a well-developed public sentiment against intemperance as an immoral practice.

In response to Governor Lucas' first message to the Legislature in 1838, the first territorial legislature passed several control laws. These included the prohibition of sales to Indians as well as the sale of liquor within two miles of worshipping congregations (unless by a legally licensed business). Fines for violation were appropriated to the education of any poor orphan child or children of the proper county. Other pertinent legislation was contained in acts which incorporated cities. To some extent the history of liquor control laws in Iowa is a history of powers given by the legislature to towns and cities.

Governor Lucas continued his active interest in the temperance movement which was gaining momentum. In his second annual message (1839) he held the vendor of spirits morally accountable for all the crimes and wretchedness produced by the use of such spirits. He recommended legislation to repeal all license laws then in force and leave the whole matter entirely to the control of public opinion, or, if this was not expedient, then to pass a law giving voters in each county the right at each annual election to vote upon the question of whether or not licenses should be granted within that county.

However, the legislature did not act on these recommendations, and with one notable exception there was no further important legislation until Iowa became a state in 1846. The electors of the community were given the right annually to vote for or against the licensing of liquor retailers.

Although the temperance movement seems to have lost much of its vitality during the later years of the territorial period and there was little agitation for new control legislation, still, in 1847, the First General Assembly of the State of Iowa passed the first state wide local option law. It required that a vote be taken at the annual township election on the question of whether the county commissioners should grant licenses for the retail sale of intoxicating liquor in their county. In the following election (April 5,

1847), every county in the state except Keokuk County voted against licenses. In effect, the state, except for one county, was now under legal prohibition for the first time. But the law was not enforced, and violations were widespread.

The next General Assembly, in 1849, empowered the Board of County Commissioners to grant or deny retail licenses. In essence, this returned the state to the license system prevailing during the territorial period. Those who favored the license system argued that no more liquor was sold under the license law than under prohibition, and that the sale of licenses was a fruitful source of revenue.

The next major change came in 1851 when the first law prohibiting sales of "liquor by the drink" was passed. Package sales were permitted, but the state rejected any share of profits from liquor sales. This law pleased no one because it neither prohibited beverage alcohol nor gave the state the benefit of revenue.

The prohibitionists renewed their activities with vigor. In the election campaign of 1854 they reversed their policy of avoiding politics and backed James W. Grimes, who was elected governor. In 1855, the legislature enacted the first prohibition law with the proviso that it be submitted to popular vote. It was approved by the voters in April, 1855, by a close popular vote of 25,555 votes for the law and 22,645 votes against it. Interestingly enough, the vote by counties was equally divided—thirty-three counties for, thirty-two against, and one tie. The law prohibited the manufacture or sale of intoxicating liquors with the exception that homemade cider and wine might be sold in quantities of not less than five gallons for medicinal, mechanical, or sacramental purposes only. Liquor could also be imported in the original packages, but county judges were to act as agents for the purchase and sale of liquor for legal purposes. The prohibitory law went into effect in July of 1855, and while saloon-keepers generally closed their shops, it was only temporary. Within a month, they began to reopen them and there was little effort to enforce the law. A weakness of the law was the means of enforcement it provided. It relied mainly upon complaints brought by at least three citizens. However, the prohibitionists who had fought as long and hard for the law set back with folded hands, secure in the knowledge their law had passed. Citizens who opposed the law were even less inclined to complain against violators.

In an effort to strengthen the prohibition law of 1855, it was amended in 1857 to place a special duty on police officers to enforce prohibition. The same General Assembly enacted a license law with a local option clause, but it was declared unconstitutional.

In 1858, as a concession to the large German element in the State, the 1855 law was again amended to permit "the manufacture and sale of beer, cider, and wine from fruits grown in this state." By 1859 prohibition had fallen into such disfavor that the Democratic party declared against it in its platform.

During the Civil War, there was little legislation relating to liquor except for certain attempts to make the 1855 prohibition law more stringent. All the while, liquor was being sold almost without restriction.

In 1868 an act was passed giving incorporated towns power to regulate or prohibit the sale of beer, wine, and cider. In effect, this meant local option for these beverages while ardent spirits were still prohibited. Nearly all the larger cities chose to "regulate" rather than prohibit the sale of these beverages and imposed a tax on sales.

Another attempt at local option in 1870 was struck down by the courts as unconstitutional on technical grounds. In 1878, the General Assembly enacted a law making it unlawful to sell ale, wine, or beer within two miles of any municipal corporation except under authority of the municipality in question.

Beginning in 1878, the temperance forces focused their efforts on absolute prohibition and sought to bring this about through a prohibition amendment to the state constitution. It was thought that the temperance question thus would be removed from the political arena and decided by the people on its merits.

The "wets" and "drys" fought a spirited battle during the next several years. The net result was that the proposed prohibition amendment was passed by two consecutive legislatures (1880 and 1882) to be submitted to the voters as required by the constitution. However, the matter was complicated by a Senate Resolution in 1882 which declared that while the amendment prohibited the sale and manufacture for sale of liquor **within** this state, it was not designed to prohibit the manufacture of liquor for sale outside the state.

With widespread interest and high feelings, the voters went to the polls on June 27, 1882, and cast 155,436 votes for the amendment and 125,677 votes against it. Seventy-five counties declared for, twenty-three voted against, and in one county the vote was a tie. Polk County had the largest majority for, and Dubuque County led in the opposition. It is also interesting that ten counties which had voted for the prohibition law of 1855 now declared against the amendment, while twenty-three counties which had opposed prohibition in 1855 now voted in favor of it.

On July 29, 1882, Governor Sherman proclaimed the amendment had been legally adopted. However, the prohibition forces were yet to be denied their victory. The following January, the Supreme Court declared the amendment invalid on a technicality. The court found that the wording of this amendment as approved by the voters was not identical with the resolution adopted by both house of the Eighteenth General Assembly and was therefore invalid.

The prohibition issue played an important role in the next (1883) political campaign. The Democrats again came out for a license system while the Republicans held to prohibition. The Republican candidate, Buren R. Sherman, won re-election as governor, and in his message to the legislature (1884) he recommended the enactment of prohibitory legislation. Accordingly, the legislature enacted two laws which imposed prohibition as absolute as that contemplated by the defeated constitutional amendment. The first of those laws repealed the famous wine and beer clause which had been on the statute books since 1858. The definition of intoxicating liquors was made to include ale, wine, and beer, and the manufacture and sale of these drinks along with all other liquor was prohibited. Another law detailed further restrictions on liquor traffic and provided heavier penalties for violation of the law. The obvious intent was to make the manufacture or sale of liquor impossible within the state. However, it did permit the manufacture and sale of liquor for medicinal, mechanical, culinary, or sacramental purposes under strict state regulation. A significant feature of the law was it provided that one-half of the fines for violation should go to the person who brought information of violation, and that the other half would go to the school fund of the county.

Thus, absolute prohibition was to be given its first trial in Iowa, July 4, 1884. It will be recalled that the prohibitory law of 1855, even before its modification by the wine and beer clause of 1858, had not imposed absolute prohibition. There was much opposition and defiance of the law and no little violence ensued.

Within a few years, the desire for liquor on the the part of the sizable segment of the population was manifested in a growing reaction against prohibition. The Democrats, taking advantage of this reaction, succeeded in electing their candidate for governor in 1889 and again two years later. The Republicans reacted by declaring prohibition no test of Republicanism and suggest changing the law so that the local communities could control liquor traffic. Thus, in 1894, the legislature enacted the so-called Mulct Law. For all practical purposes this was a local option measure. The prohibition law of 1884 was not expressly repealed, but under the new law saloons might operate in counties where petitions requesting licenses were signed by 65 per cent of the voters voting in the last general election. Larger cities needed signatures of a simple majority and smaller cities needed signatures of 85 per cent of such voters to legally sell liquor.

The liquor legislation of the next fifteen years consisted mainly of amendments to the Mulct Law and to the earlier prohibition law. The next significant change appeared in 1909 when the thirty-third General Assembly passed several liquor laws. The number of saloons was limited to no more than one per 1,000 inhabitants of a community. However, towns of less than 1,000 population might permit one person to sell liquor. It was provided that only a qualified elector of the town, city, or township could engage in retail sales. Also, manufacturers of liquor were forbidden to retail it. Still another provision prohibited drinking on passenger trains or streetcars. Following the passage of these laws, the number of saloons in the state decreased from 1,600 in 1908 to 740 in 1912.

The next notable change appeared in 1915. Recent legislatures had been steadily tightening the restrictions on liquor traffic. This trend to prohibition paralleled a nationwide increase in prohibition sentiment. There was a growing feeling of opposition to the public saloon, and the thirty-sixth Iowa General Assembly in 1915 re-established absolute prohibition in the state by repealing vital portions of the Mulct Law and subsequent amendments, leaving in effect the old prohibition act of 1884. In other words, it removed the means by which the 1884 prohibitory law could be "legally" violated.

Thus, Iowa returned to statutory prohibition. The same legislature passed a resolution to again submit to the people the question of a prohibition amendment to the State Constitution. This was ratified the second time by the legislature in 1917 and the question was submitted to popular vote October 15, 1917. The proposal was defeated by less than 1,000 votes. This was the fourth time that Iowans had voted on the prohibition question, but the first time it was defeated.

It was just over one year later (January, 1919) that the legislature ratified the Prohibition (18th) Amendment to the Federal Constitution. It is interesting to note that this was done by an overwhelming vote in both houses in the face of the recent rejection by the voters of a similar amendment to the State Constitution. This portended the ultimate failure of prohibition.

The temperance forces had finally achieved victory beyond expectation. Statutory prohibition plus federal constitutional prohibition was all and more than they had hoped for. In 1919 the Anti-Saloon League of America expressed confidence that "the situation was well in hand" by declaring "the state would no more think of going back to saloons now than to return to dueling and the tomahawk." Since it appeared that beverage alcohol had been forever banned and since it was believed to be the cause of most, if not all, other crimes, it is understandable that some communities sold their jails. In 1919, Buckgrove sold the town jail to a farmer who converted it to a combination pig and chicken house and the following year the town of Vinton converted its jail to a tool house.

However, John Barleycorn was by no means dead. In 1922 the governor complained of the illegal manufacture of alcohol in the state and the difficulty of enforcing prohibition. The legislature of 1922 passed several laws to strengthen enforcement. This included the first law against operating a motor vehicle while intoxicated and provided a \$1,000 fine for violation.

The temperance forces continued to wage an active propaganda campaign with mailed literature, lectures to schools and civic groups, State Fair exhibits, etc. The Anti-Saloon League boasted that in 1924 for the first time in the state's history "a 100 per cent dry delegation" was elected to Congress, and that in addition, the dries had complete control of the state legislature (10). The General Assembly continued to enact legislation to strengthen existing prohibition laws, but the negative reaction to prohibition was mounting. In 1931, a bill to repeal the state prohibition laws was introduced but defeated in the legislature. This legislature did pass a law providing stiffer penalties for operating a motor vehicle while intoxicated, including a mandatory prison term for the third offense.

In 1933, the electors of the state ratified the 21st Amendment repealing the Prohibition Amendment to the Federal Constitution. The popular vote was 376,661 for and 249,534 against repeal. It is noteworthy that while the legislature itself ratified the Pro-

hibition Amendment, it chose to shift responsibility for a decision on the repeal amendment to the voters.

Repeal of the Federal Prohibition Amendment left the state with statutory prohibition, but the next legislature completely overhauled the liquor laws by enacting the 1934 Iowa Liquor Control Act which was to be the basis of liquor control for the next thirty years. Here, the state borrowed ideas from Scandinavia and tried an entirely different approach to liquor control by assuming a monopoly on the retail sale of beverages containing more than 4 per cent alcohol by weight. The basic features of this comprehensive act included:

1. The sale of liquor by the drink was prohibited except for beer containing no more than 4 per cent alcohol by weight (3.2 per cent by volume). Liquor could be sold only in packages and only in state-owned liquor stores.

2. A three-man liquor control commission was created to establish and maintain such stores and to otherwise regulate the distribution of liquor in the state.

3. Before individual citizens could make purchases from the state stores, they were required to pay \$1.00 for a permit book which was valid for one year. A record of each purchase was entered in the book and the permit could be revoked for any law violation involving liquor—including nonsupport and desertion of family.

4. Special licenses could be issued to liquor manufacturers and wholesalers.

5. A liquor control fund was created to provide working capital for the commission with any excesses over 1.5 million dollars to be transferred to the General Fund of the state treasury.

6. Semiannually, 5 per cent of the gross amount of sales of state stores was to be distributed to the cities and towns in proportion to their population to be used for any lawful municipal purpose.* Presumably, the underlying rationale was that this would help municipalities meet problems created by excessive alcohol use since they were otherwise denied liquor revenue. In addition to these major features, the Liquor Control Act of 1934 detailed many minor rules and regulations. Another set of laws was passed to govern the sale of beer containing less than 4 per cent alcohol. These laws provide a licensing system for the sale of beer in taverns and grocery stores.

The following three decades saw only minor changes in the liquor laws. The next major change came in 1963 when the Sixtieth General Assembly amended the Liquor Control Act to permit retail sales of liquor by the drink under licenses issued by the Liquor Control Commission. Such licenses were to be issued only upon approval of the application by the local government. However, the state retained its monopoly on the sale of packaged liquor, and all retailers were still required to purchase their supply from state-owned stores. The commission was given authority to establish a liquor law enforcement division with an attorney as director and five assistant directors.

A state Liquor Law Enforcement Division came into being July 4, 1963, when liquor-by-the-drink was legalized. Strict licensing, bond and insurance requirements for liquor-by-the-drink establishments, plus the state-wide liquor law enforcement division, made control a meaningful part of the "Iowa Liquor Control Act" and eliminated "liquor-by-the-drink." As license fees and taxes from the sale of liquor-by-the-drink came into the Iowa Liquor Control Commission, Iowa citizens realized some indirect tax relief by collecting revenue which formerly went to the bootlegger.

Iowa controls the sales and distribution of alcoholic beverages through the three-member Iowa Liquor Control Commission. These men are appointed by the Governor for a 6 year term. The legislature fixes their salary. The Commission has the exclusive power

*According to the Iowa Liquor Control Commission report for 1964, every incorporated town and city received approximately \$1.29 per capita.

To regulate the liquor traffic in Iowa. All liquor, wine and beer containing more than 4% alcohol by weight, must be sold through the 192 state liquor stores. These stores are supplied from the central warehouse in Des Moines.

The Commission issues several types of licenses. The most significant is to retail establishments authorizing them to purchase liquor from the state liquor stores and resell it by the individual drink for consumption on their premises. Before a liquor license is issued the applicant must agree to inspection of his premises at any reasonable time by health, fire, and law enforcement officers. As to further protection for the general public, a liquor licensee must post a bond to insure payment of all taxes and furnish proof that he will be able to pay any damage claims for which he is legally liable. The licensee purchases a "dram-shop" liability insurance policy to furnish proof of Financial Responsibility. Other requirements insure further control before and after a license is issued. Several classes of liquor licenses are issued with the fees based upon the type of operation. The most expensive is \$1,000 for a Class "C" commercial establishment, or Class "B" hotel or motel license. The least expensive is \$100 for a Class "A" club license issued to a veterans organization authorizing them to operate one day a week. Further, a 10% gross receipt tax is imposed on each alcoholic beverage drink sold in Iowa. This is collected by the licensee and remitted to the state each month along with a report of all sales by the licensee.

In addition to the 2,400 liquor licenses issued by the Iowa Liquor Control Commission, there are about 4,500 beer licenses (for taverns, clubs, and grocery stores) issued by the local authorities and the State Beer Permit Board.

The Iowa Liquor Control Commission also licenses manufacturers. At present there are 4 firms with manufacturer's licenses. Only one produces alcohol for beverage purposes. Further, the Iowa Liquor Control Act authorizes a person to produce wine from native grown fruit and sell it at retail at the place of manufacture. There are 7 "native winerys" in Iowa. One at Fort Madison and 6 near the Amanas.

During the fiscal year ending June 30, 1965, Iowa citizens received nearly 23 million dollars in revenue because Iowa "controls" the sale of liquor. Sales of liquor in state stores totaled 52 million with 12.8 million being purchased by licensees for re-sale and 39.2 purchased by individuals.

Before figuring profit on the 52 million, 5% of this gross went to cities and towns and 5% went to counties. Or 5.2 million returned to local authorities. In addition, the State Tax Commission received about \$786,916 in sales tax on the 39.2 million sales to individuals. After these deductions, the "profit" on the 52 million dollars in sales was 11 million. License fees brought in about 1.9 million, half of which was returned to cities, towns, and countries where liquor-licensed establishments are located. Another 4 million was collected for the 10% gross receipt tax on liquor-by-the-drink.

But revenue is merely a by product of the control system designed to promote the well-being of the citizens by the regulation and control of alcoholic beverages. The well-being of families—the children in particular—is of supreme importance and it cannot be measured in dollars and cents. Severe criminal penalties are provided for those irresponsible people who knowingly make beer or liquor available to a minor.

In Iowa, a person under 21 years cannot legally have liquor or beer in his possession or control. Nor may minors purchase or attempt to purchase liquor or beer; and it is unlawful to misrepresent or present falsified evidence of age to purchase beer or liquor. Further, a minor may not be employed to handle liquor.

In addition to the criminal penalties of a jail sentence of up to 30 days or a fine of up to \$100, plus the embarrassment to himself and his family, a minor violater is plagued throughout his adult life with a criminal record. This criminal record may prevent him from being accepted for college; from joining the armed services or obtaining that "important" job.

While the 30 days in jail would pass, the embarrassment forgotten and the \$100 fine recouped, the criminal record will hinder a person throughout his life. But the most serious consequences a young citizen might suffer by ignoring this law, would be that his disrespect for this one law could lead to a disrespect for all law and thus weaken the very foundation of America. For this reason, many responsible citizens have formed groups to study and combat juvenile drinking through a program of preventive "Enforcement thru Education."

Provision was also made for "reverse" local option. That is, licenses might be issued in a county unless and until voted against in popular election called for by petitions containing signatures representing 25 per cent of the votes cast for governor in the last election. Such an election cannot be repeated more than once in four years and a license issued before the election is valid for three years or until it expires. Thus, even after a county has voted dry, it may actually have legal sales of liquor by the drink for another three years.

As of February 1, 1965, a year and one-half after the liquor-by-the-drink law became effective, twenty-one counties had held elections. Twelve of them voted wet and nine voted dry. The fact that the counties that have voted dry are mostly located in the south central part of the state which traditionally has been the driest section of the state lends support to the notion, first, that a population is slow to change its drinking practices and attitudes and, secondly, that a population with the strictest liquor controls probably has least need for them.

Chapter III

BASIC FACTS ABOUT ALCOHOL

Controversy is more frequently characterized by partisan views than by the search for truth, yet controversies can be resolved only after the truth is fully known. Teachers have always been expected to teach children the truths which they must know in order to make wise choices among competing ways of life as children, and to make wise decisions about alternative proposals for society as adults. It is obvious that teachers must be well informed about all that they teach.

There is a large body of information about alcohol, its effect upon man's social and economic well-being, its effects upon the processes of the body, and society's efforts to control its use. Selecting material adequate for instructional purposes and yet not omitting essential information has been a most difficult task. Pertinent facts relating to many aspects of alcoholic beverages have been included.

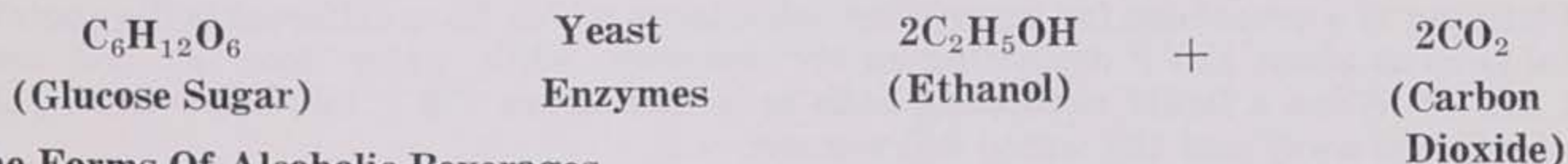
Teachers are urged to learn more than the facts presented here. The resources presented at the end of the manual can be used for this purpose. Keeping abreast of new developments is also important. Study and research is continuing to reveal facts which should be taught in school. Continued search for knowledge about alcoholic beverages enables teachers to avoid the use of half truths and opinions and so produce more adequately informed students.

Composition of Alcohol

There are many different kinds of alcohol. All are toxic to the human body in varying degrees. All of them are either solids or liquids containing the three common elements, carbon, hydrogen, and oxygen, and having differing physical or chemical properties. Ethanol or ethyl alcohol is found in alcoholic beverages. It is a colorless liquid and looks like water. Pure ethyl alcohol is flammable and has a powerful burning taste and a faint odor. It will readily mix with water. It is rapidly absorbed by the body. The chemical formula for ethanol is C_2H_5OH .

How Grain Alcohol Is Produced

Ethanol, the alcohol used in alcoholic beverages, is produced by a natural process called fermentation. Enzymes produced by a living organism, the yeast plant, bring about chemical change by working on molecules of sugar, changing them into two molecules of ethanol and two molecules of carbon dioxide. The alcohol accumulates in the solution while the carbon dioxide escapes as a gas. Chemists write this change as follows:



The Forms Of Alcoholic Beverages

Few, if any, people drink alcohol in undiluted form. Many, however, drink beverages of which alcohol is an ingredient. These beverages vary widely in the materials which go into them and in the amounts of alcohol which they contain. They are similar in that they all contain alcohol and flavors of some sort; those flavors are called congeners.

The alcoholic content in a beverage is dependent on the processes of manufacture, of which there are three main types:

1. **Fermented juices containing natural sugar.** Wines make up this group. They contain about 6 per cent to 14 per cent alcohol, by volume.

2. **Fermented malt beverages.** Beer and ale are in this category. Beer contains about 4 per cent alcohol, by volume; ale slightly more.
3. **Distilled liquors.** Whiskey, gin, rum, and brandy are in this group. Their alcohol content will be much higher, usually from 40 per cent to 50 per cent alcohol, by volume.

Fermented Fruit Juices

Most wine is made from grape juice because it is high in sugar, or glucose content (about 18 per cent). Some wine is made from other fruit juices containing natural sugar.

The juice is placed in an open container where yeasts on the skins of the grapes and in the air begin the process of fermentation. After about 10 days the juice is drained off, and placed in wooden kegs where the fermentation is continued, usually for several months. During this last stage, air is kept from the fermenting mixture. The alcohol eventually kills the yeast and fermentation stops. When the fermentation has ceased, the wine will contain from 6 per cent to 14 per cent alcohol, by volume. Wines which contain more than 14 per cent alcohol have had additional alcohol added. If some sugar is left, the wine is "sweet," and if little sugar is left, it is "dry."

Fermented Malt Beverages

Beer, ale, porter, and stout are malt beverages made from grains such as corn, rye, and barley. These grains contain starch, but little sugar. Malt is made from barley grains which have sprouted, been dried, and powdered.

In making beer, the brewer adds ground grain and malt to water. This is called a mash. An enzyme called diastase in malt quickly changes the starch in the grain to sugar which dissolves in the water. When this process is completed the liquid portion, called the **wort** is drained off. A small amount of hops is then added to flavor the beer. The mixture of wort and hops is then boiled and the fluid is strained off into the fermentation tank and cooled. Brewer's yeast is then added and the mixture is allowed to ferment for about 10 days. The yeast changes part of the sugar into alcohol and carbon dioxide. The yeast sediment is then strained from the mixture and the final product, beer, is stored for several weeks. It is then treated with carbon dioxide and bottled. The bottled beer, which contains 3½ per cent to 5 per cent alcohol by volume is pasteurized before marketing.

Ale is made by a similar process, but contains from 6 per cent to 8 per cent alcohol by volume.

Distilled Liquors

Distilling is a procedure for separating substances which have different boiling points. Alcohol boils at about 173°F depending on air pressure, while water does not boil until about 212°F. When a liquid containing both is heated above 173°F but below 212°F, the alcohol will boil away and the water will remain.

Distillation consists of boiling the fermented liquid and condensing the alcohol and water vapors in a cooling tube, or still.

Whiskey

This beverage is made from a grain, usually corn, rye, or barley. The grain is ground, mixed with water, and boiled. Malt is then added to change the starch to sugar. Brewer's yeast is added to ferment the sugar. The resulting mixture is called distiller's beer, which is distilled. The resulting mixture, raw whiskey, contains alcohol, water, a small amount of colored material, and flavoring matter.

The raw whiskey is then aged in charred oak barrels from two to seven years. During this time the whiskey takes up certain substances from the wood and becomes darker. Traces of acids in the whiskey unite with some of the alcohol to form esters. The

ethyl alcohol is not changed, but the flavor of the whiskey becomes somewhat different. Scientific tests have shown that there is no difference between the effects on the systems of the body of raw or aged whiskey.

Whiskey contains from 40 per cent to 50 per cent of alcohol by volume. On the label of distilled drinks, the amount of alcohol is called the **proof** of the liquor. This is an old English term for a method of testing alcohol content. The whiskey was poured over gun powder to which a flame was applied. If the powder burned, the whiskey was called proof whiskey. Unless the whiskey contained about 50 per cent of alcohol by volume it did not evaporate from the powder. Thus 100 proof whiskey contains 50 per cent of alcohol by volume.

Gin

The base substance for gin is neutral spirits which is nearly pure alcohol. To this is added water and flavoring materials, the oils of juniper berries, and other herbs. Gin is clear in color because it is not aged in wooden containers. It is from 80 to 100 proof.

Brandy

This beverage is made by distilling wine. Some of the flavoring from the wine distills over into it. Brandy is usually from 80 to 100 proof.

Rum

This beverage is made by distilling fermented molasses which is high in sugar and thus does not have to be malted as grains are.

Chapter IV

EFFECTS OF ALCOHOL ON THE BODY

Dilution and Absorption

Beverage alcohol passes through four steps of dilution:

1. It is diluted in the process of manufacture.
2. It is diluted further when consumers add water or mixers to distilled beverages.
3. It is diluted by gastric juices upon entering the stomach.
4. It is diluted by the body fluids after being absorbed into the body.

After these four steps have occurred the alcohol is less than 1 per cent of the body fluid. However, even this weak form affects human behavior in a variety of ways.

Most foods undergo chemical changes during digestion and assimilation. Alcohol is absorbed directly into the blood stream without being changed. Several factors affect the rate at which alcohol is absorbed. If the concentration of the alcohol in the beverage is high, the absorption is more rapid. If there is food in the stomach, the absorption is retarded. Usually from 20 to 30 per cent of the alcohol is absorbed through the walls of the stomach.

The alcohol which is not absorbed from the stomach passes on into the small intestine where it is further diluted by intestinal juices and then absorbed into the blood stream.

Oxidation and Elimination

Oxidation is the process by which all food substances are united with oxygen, resulting in the liberation of energy. All oxidation, whether of sugar, fat, or alcohol, is a controlled process. The rate is determined for sugars and fats by the body's over-all needs for energy, and for alcohol, by an enzyme system functioning primarily in the liver.

Ethyl alcohol, like sugar and fat, is oxidized in the body to form carbon dioxide and water. The process occurs primarily in the liver and later in the cells of many parts of the body. The rate varies somewhat with the amount of alcohol present in the blood and can be slightly influenced by certain drugs, but, for an average man weighing 150 to 160 pounds, the liver will carry out the primary oxidation of about one-third of an ounce by weight of alcohol per hour. Alcohol, unlike sugar and fat, cannot be stored in the body; it is oxidized continuously as long as it is present. The peak of concentration in the blood comes about an hour after drinking on an empty stomach.

Approximately 95 per cent of the alcohol taken into the body is oxidized. The remaining 5 per cent of the alcohol is eliminated in the breath, urine, and perspiration without chemical change.

Brain

Alcohol in any quantity produces a depressing, not a stimulating, action on the central nervous system. When alcohol is ingested and enters the blood stream, the functions of the cerebrum are affected first. Judgment is generally impaired, caution is reduced, self-control is lessened, reason is blunted, will power and attention are depressed, and special senses are dulled, and inhibitions begin to be removed. Alcohol is an anesthetic, reducing sensitivity to pain, and was used in surgery prior to the discovery of ether.

With increased amount of alcohol, the function of the cerebellum becomes dulled. The complex coordination necessary in many activities is impaired. Still heavier consumption of alcohol dulls the functions of the medulla oblongata and if heavy enough, paralyzes the centers controlling the heart beat and breathing. At this point the drunken stupor, a state of unconsciousness, usually occurs and prevents further drinking. If more alcohol is

consumed, these centers are further affected and death may occur when the blood alcohol reaches 0.60 per cent to 0.80 per cent by weight.

Digestion

Alcohol in small amounts leads to an increase in the flow of gastric juices and to contraction of the stomach. The sensation of hunger may develop. These changes occur when alcohol is administered intravenously as well as by mouth and are therefore not due solely to a local action on the stomach. Small amounts of alcohol do not interfere with digestion, they may even promote it; large amounts slow or stop it.

Circulation

When alcohol circulates in the blood stream, the blood vessels on the surface of the body become dilated, causing an increased blood supply in that area. If the air is cold, additional amounts of heat escape from the body and the body temperature is lowered. Persons going into cold climates sometimes use alcohol because it causes a feeling of warmth, due to the nerve endings near the body surface being affected by the increased blood supply. The body temperature is actually decreased. Alcohol provides calories at the rate of 70 per hour which is about three-fourths the quantity required for an average weight person doing light work.

Alcohol is popularly believed to be a respiratory and circulatory stimulant, but this is not true. In some people alcohol causes a relaxation of the blood vessels of the skin which is accompanied by a drop in blood pressure and an increase in the pulse rate drops after the alcohol enters the blood.

Glandular Disturbances

Alcohol appears to act upon the pituitary gland in diminishing the secretion of the antidiuretic element, which acts upon the kidneys to impose restraint on the rate of flow of urine. Alcohol, therefore, usually increases the flow of urine.

There is some evidence that alcohol may affect other glands, particularly the adrenals, but research in these areas is not yet complete. No final conclusions can be drawn.

One of the most powerful basic factors influencing human behavior is that connected, directly or indirectly, with the sex instinct. Generally such basic instincts are controlled, or repressed by the action of the brain. This control is achieved through the influence of such forces as past experience, education, training, religious beliefs, ideals, and through the consciousness of other needs, such as social approval, companionship, and the desire for affection and recognition.

The anesthetic effect of alcohol in those portions of the brain which control behavior causes the drinker to become less aware of the need for control, and less conscious of the forces which assist in imposing those controls. Under the influence of alcohol, the individual may become more primitive in behavior as the basic impulses are released from the acquired controls. The general effect is characterized by a regression from maturity to immaturity and from civilized to uncivilized behavior. This behavior is not the result of physiological stimulation produced by alcohol; that is, the functioning of the sex organs is not increased by action of the alcohol. There may be, however, an apparent stimulation when the normal controls over sex are released by the alcohol.

This situation arises when alcoholic beverages are served to young people in matters of dating or parties. Often the emotions are allowed freedom to the extent that serious difficulties follow. If the adolescent is the type of personality who is governed by his emotions, it may take less actual alcohol to create the situation.

Stages of Intoxication

The various stages of intoxication are determined by the increasing concentration of

alcohol in the blood. The degree to which normal performances are impaired is in direct proportion to the stage of intoxication.

One of the early signs of intoxication is when the drinker, because of the effect of alcohol, is unable to recognize his anti-social behavior. Loud, boisterous conduct exemplifies such a person.

In the first stage, when the highest function of the cerebrum is dulled, the psychological and physiological effects of alcohol are observed in the area of motor and sensory reaction time. Results of some experiments, reviewed by Dr. Jellinek, show definite differences in reaction time.

In an experiment dealing with visual reaction time and motor skill, a person weighing 150 pounds drank two ounces of alcohol, the equivalent of four ounces of 100 proof whiskey. The speed of the eye following an object was slowed 3 per cent after taking the alcohol. Finger movements in a tapping exercise were slowed 9 per cent. More complex movements of fingers were slowed as much as 19 per cent. In tracing a pencil over a plotted pathway, the errors were increased by as much as 60 per cent.

An experiment in sensory perception showed that after an individual consumed 1½ glasses of whiskey his judgment of smell and taste did not deteriorate, but more complicated judgment was impaired.

Another experiment showed that the ability to name opposites of given words decreased by 29 per cent after drinking an amount of alcohol equivalent to one glass of whiskey. Consuming two or three times that amount showed 52 per cent impairment. In experiments where two or three glasses of whiskey were consumed, the individual's sensitivity to light and sound increased, but discrimination among changes in sound and in intensity of light were impaired.

Alcohol and Disease

Statistics show an earlier death rate among persons who use alcohol excessively. The alcoholic, interested only in a life with alcohol, usually follows a pattern of daily living which weakens the disease-resisting power of the body. Statistics show that chronic alcoholics have a higher mortality from pneumonia than moderate drinkers or abstainers and acquire the infection more frequently. A person under the influence of alcohol may be more likely to expose himself to venereal disease.

Among those alcoholics who have developed some kind of physical symptoms, the most common disturbance is fatty infiltration of the liver. A third or more of such individuals have gastritis with distress after meals and lack of appetite. The general tone of the tissues is low, the muscles are flabby, and the skin is blotchy. The dilated blood vessels of the nose, giving the "rum blossom" associated in the popular mind with the hard drinker, are occasionally present.

In only one way is alcohol like a food, it provides heat when oxidized. An ounce provides 210 calories, as compared to 114 calories in an ounce of carbohydrates, and 270 calories in an ounce of fat. The calories in alcohol can only be used as fuel. Alcohol is burned to produce energy in the form of heat. Calories cannot repair or build tissue. Alcohol has none of the vitamins and minerals and proteins the body needs. An excessive drinker usually neglects food, deriving up to 70 per cent of his needed calories from alcohol, and is apt to be more interested in drinking than eating. The excessive drinker may develop diseases stemming from lack of vitamins. From lack of thiamin, one of the B vitamins, beriberi, a disease of the nervous system and the circulation, may occur. Absence of niacin, another B vitamin, can cause pellagra, characterized by roughening of the skin, intestinal disorders, and mental disorders.

Cirrhosis of the liver occurs much more frequently among heavy drinkers than among non-drinkers. The exact connection between alcohol and this disease is not clear. But

cirrhosis probably goes along with disturbances in the diet and in an important part in oxidizing alcohol, and is usually permanently damaged when cirrhosis occurs.

Body Tolerance

There is no scientific evidence at present to verify that physical tolerance is built up for alcohol. For both regular drinkers and non-drinkers, when the alcohol concentration in the blood reaches a certain point, unconsciousness follows. However, an experienced drinker has a better idea of how he is likely to feel and act after several drinks, and has developed certain controls. So it may seem as though he can handle his behavior better than other drinkers. In other words, he has developed a psychological tolerance for alcohol.

Alcoholism and Heredity

There is no evidence to indicate that alcoholism is inherited. Children who grow up in alcoholic families inevitably learn different attitudes toward life and alcohol than do children in normal homes. If more of them become alcoholics than do people in general, this is due to their experiences and not to heredity. A person from an alcoholic family probably runs a greater risk of alcoholism if he drinks.

In the third stage, the control of locomotion and muscular movement is seriously disturbed and the ordinary symptoms of drunkenness are manifested.

The fourth and last stage results in stupor, unconsciousness and coma.

The Effects Of Alcohol On Behavior

Alcohol assumes its place in our social order because it is a depressant. One of its early effects is upon the frontal portion of our physical brain including the cerebrum which aids in self-criticism and other inhibitory phases of our psychological make-up.

Alcohol releases a social safety valve (social inhibition), and so not only gives the social drinker a so-called life, but also provides him with misinformation about his own behavior. The individual who drinks often feels more confident that he is equal to any social situation in which he may find himself. Some people are governed a great deal more by their emotions than by reasoning. If they drink alcohol, they are likely to behave erratically.

Living in society produces learning which controls certain impulses and desires. The use of alcohol temporarily erases the inhibitions that have been learned since childhood and may cause the individual to resort to the impulses of childhood. A person who is easily influenced to fight, cry, or talk too much will find these traits accentuated.

Chapter V

REASONS WHY PEOPLE DRINK AND ALSO REASONS WHY PEOPLE DO NOT DRINK

Why People Do Not Drink

A University of Iowa survey completed in 1965 shows that 60 percent of Iowa's adults use alcoholic beverages, while 40 per cent are total abstainers. Reliable national surveys show that 70 per cent of the adults in America use alcoholic beverages, while 30 per cent abstain.

Reasons for not drinking vary, but by far the largest number of adults who abstain do so because of religious conviction. In many churches a pledge is taken by each member to abstain from alcohol. In such organizations as the Women's Christian Temperance Union a similar pledge is taken by each new member.

Other adults abstain on the advice of their doctors or for health reasons of their own. Athletes are likely to abstain during periods of training. A small number of people abstain because they cannot afford to drink.

Many people abstain because of some personal experience that has led them into trouble due to alcohol—an accident or injury, a traffic violation that, if repeated, might lead to a severe penalty. Some abstain because, in childhood, they have witnessed drunkenness in a parent or relative.

Of the estimated 6,500,000 alcoholics in the United States, 400,000 adults abstain because they have joined the fellowship of Alcoholics Anonymous. These men and women, once compulsive drinkers, have found a sober way of life that gives them happiness and contentment without alcohol or sedatives of any kind.

Why People Drink

Because our social mores and customs associated with drinking alcoholic beverages have led us into prejudice and misinformation, all figures and statistics related to drinking are largely educated guess-work.

Approximately 80 million adults in the United States drink. Seventy million of these men and women are "social" drinkers. Their drinking patterns range all the way from one drink on New Year's Eve to getting drunk every payday. About six and a half million are compulsive drinkers. Their drinking patterns range from "needing" alcohol as a social crutch to chronic alcoholism. Lines of gradation are blurred. In fact, one of the few statistics we can rely on is this: one in every fourteen drinkers will become a problem drinker, an alcoholic, in X number of years.

These statistics hold true for all age groups, teen-agers included. One in fourteen young people who start to drink socially will develop into a problem drinker in, say, five to X years. It is sensible to assume that youngsters run into drinking situations—occasions on which beer or "spiked" punch will be served—from thirteen years onward. The crux of the problem that concerns us here, then, is **why do young people drink?**

The custom of drinking has deep social roots. Since man first pressed grapes and fermented grain berries, people have concocted alcoholic beverages. Alcohol was a discovery. The euphoric or sedative effect of alcohol on the mind and body was a discovery. It was an adult discovery passed from one generation to another. Through the ages, young people have learned to drink from older people.

Adult social customs related to alcohol are handed down from father to son. Cocktails before dinner. Wine with meals. The hospitality of offering drinks to visitors. Raising glasses in toast. Pledging an agreement over a drink. The lessons that drinking among adults is quickly learned as "the thing to do."...

These customs gain strong support by the ceaseless exposure of young people to movies, TV, posters—even the neon signs on the local tavern. Slogans like “man-size pleasure,” “the ‘soft’ whiskey,” “aged in the wood,” “from the land of sky-blue waters”—all these phrases find ready acceptance among young people of both sexes. Drinking quickly becomes glamorous. Moral and legal restraints make drinking more adventurous.

People drink in our society because it is the accepted custom. Even those opposed to alcohol or who derive no special relaxation from it, will drink when occasions demand it. These people constitute the large segment of drinkers unlikely to progress into compulsive drinking.

Alcoholism grows from that segment of drinkers whose pattern is based on a **need for a sedative**. Alcohol is a sedative, not a stimulant. These people drink alcohol for its effect. By drinking, they become more at ease at parties, more glib, more sociable. By sedating tensions they feel relaxed, courageous, better able to cope with different difficult situations. Continuous use of alcohol leads them to reliance on alcohol in any form. Alcohol becomes a psychological crutch. These users become so dependent on alcohol that often, they believe they cannot manage their lives without drinking.

Psychological dependence is followed by physical dependence. An alcohol addict becomes addicted to alcohol very much the way a drug addict becomes addicted to heroin or morphine or any other “hard” drug. By conditioning his body to increasing quantity, he builds physical tolerance. One drink no longer gives him the sense of well-being he seeks. He needs two, three, four. Given time, he follows this progression into full-blown alcoholism. The nation now has six and a half million alcoholics. Alcoholism is the country’s fourth greatest health problem.

Unfortunately, we cannot detect the young person likely to follow an emotional pattern leading to problem drinking or alcoholism. We know this one-in-fourteen boy or girl exists, but we cannot spot him as a pre-alcoholic. Thus, we present truthful alcohol education programs to all young people of high school age. We fire a shot gun hoping to hit the target if it exists. The effort is never wasted because problems arising from alcohol run the gamut of our society. No youngster growing into adulthood is likely to avoid involvement. Drinking and driving, all accidents related to drinking, drunkenness, police arrests, parental drinking—these are but a few of the everyday problems everybody may encounter. Through a sensible educational approach we hope to better equip our present young people to handle alcohol problems with confidence and maturity.

Chapter VI

ALCOHOLISM

Simply stated, the term **alcoholism** means a psychological compulsion to drink alcohol. An **alcoholic**, then, is a compulsive drinker who sedates himself, or herself, with beverages containing alcohol—whiskey, vodka, gin, wine, and beer.

Physical impairment, particularly liver damage, usually results from long and excessive intake of alcohol. Little evidence exists that the pre-alcoholic is born with a biological deficiency—glandular, metabolic, cellular—for which alcohol could compensate. Rather, the alcoholic uses alcohol to lessen emotional tension, reduce social pressures, and induce the state of blissful serenity known as “euphoria.”

As time goes on, physical impairment resulting from alcohol compounds the malady. Individual tolerance for alcohol builds up. Where one or two drinks once produced euphoria, now three or four drinks are needed. In this way, a psychological and physical pattern begins to build. Physical craving increases as sedation wears off. Emotional tensions occur more frequently. More drinks are needed. Finally, the alcoholic's sought-for euphoria becomes impossible to obtain. “Cloud nine” no longer supports him. Alcoholic stupor is the only achievable result. The vortex of alcoholism gains momentum.

Approximately 80 million Americans drink alcoholic beverages. The spread of their drinking pattern is wide and ranges all the way from so-called “social” drinking to periodic bouts of drunkenness. Within this large statistical segment are the alcoholics—6 million men and women who drink compulsively.

These are people of all ages whose only common denominator is their **unpredictable behavior after the first drink.**

One in fourteen social drinkers become problem drinkers in X number of years. A problem drinker is defined as anyone whose life—family, friends, job—is adversely affected by alcohol. A social drinker can still control his drinking. A compulsive drinker cannot. The difference is readily observable by everyone **except the compulsive drinker himself.**

Observable conditions of alcoholism and drunkenness are often identical. The vital difference is **a priori.** The alcoholic is impelled to drink and, after the drink is taken, his freedom of choice is non-existent. Conversely, the social drinker has freedom of choice before and after drinking.

The medical concept of alcoholism passed a milestone in 1957 when the American Medical Association defined alcoholism as “a treatable illness within the province of the physician.” The World Health Organization takes a similar view and defines alcoholism as a disease. The U.S. Public Health Service brings the magnitude of the problem into focus by listing alcoholism as the nation's fourth major health problem — after heart disease, cancer, and mental illness. The Iowa Medical Society, having established a Committee on Alcoholism, encourages doctors to treat compulsive drinkers and hospitals to accept alcoholics as patients. Many insurance companies cover alcoholism under hospital benefit plans.

Legal concepts of the alcoholic are also changing. Until recently the attitude of the law had been largely punitive. Judges leaned heavily on fines and jails. Stricter laws, harsher penalties and narrower restrictions have characterized the courts' approach to all problems relating to drinking. As recently as in the 1920's national prohibition attempted to impose abstinence with a law that proved totally unenforceable.

Today, the attitudes of the law are changing, and Iowa is in the vanguard. In 1965 the Iowa Legislature enacted into law a bill empowering the District Courts to commit alcoholics to hospitals. Under the old law, a person convicted of drunken driving a third time could be sentenced to the penitentiary for 1 to 5 years. Now the District Court has a new jurisdiction after the second offense. The offender may now be committed to hospital **or**

prison. Iowa is the first state in the union to enact such a law. This important step begins to bring our legal concept into line with our medical concept of alcoholism.

Since man first crushed grapes and fermented grain, mores and customs have arisen in social and religious groups the world over. Many Christian churches hold the view that all drinking is anti-social and, therefore, sinful. Within this concept any intake of alcohol is contrary to the Bible. This view goes further. Some take the view that proper correctives for deviant drinking should be punitive rather than therapeutic. Today, surveys indicate that this attitude, too, is moderating and drawing closer to modern medical and therapeutic opinion.

Because alcoholism cuts so wide a swath across so many disciplines—medicine, psychiatry, psychology, chemistry, sociology, theology—all the disciplines have addressed themselves to the problem.

Studies into every phase of the malady are currently undertaken at the Rutgers School of Alcohol Studies, New Jersey, and other institutions both in United States, Canada and overseas.

The University of Iowa, Iowa City, has played an important part in gathering and computing statistics on alcoholism. There, the Division of Alcohol Studies under the directorship of Harold Mulford, Ph.D., has conducted a continuous survey of alcoholism in Iowa for the past eleven years. It has established many guide lines for the various activities of the Iowa Commission on Alcoholism.

Alcoholism in Iowa

It can be roughly estimated that 50,000 of Iowa's 1.7 million adults use beverage alcohol in a manner that renders them likely candidates for the label "alcoholic." The vast majority of the state's one million drinkers are not heavy users, and contribute little if anything to the alcoholism problem. About 85 percent of them consume no more than two drinks a week. The remaining 15 percent of the drinkers consume approximately three-fourths of the beverage alcohol. But even so, most of these "heavy drinkers" are not alcoholics. The alcoholism problem is attributable to the excessive drinking of only about five percent of all drinkers.

Incidentally, since these deviant drinkers—five per cent who are alcoholics—probably contribute close to half of the state's revenue from the sale of beverage alcohol, they can be regarded as having prepaid their fees for any service the state might offer them.

The male-female ratio among alcoholics is 5 or 6 to 1. Although alcoholics are to be found in all parts of the state, proportionally more of them live in urban areas. From 80 to 85 per cent of them are married, have families and are employed. An estimated 3 to 10 per cent are skid-row derelicts or chronic police offenders.

Treatment

There is no cure, per se, for alcoholism. Alcoholism is a progressive illness terminating only in death or insanity. **But alcoholism can be arrested.** Total abstinence accomplishes the only guarantee of sobriety.

Many heavy drinkers become debilitated enough to seek medical advice. If honest case history is given, the doctor will have little difficulty in determining whether the patient is an alcoholic or not. If the patient is, in fact, diagnosed an alcoholic, the doctor tells him the full score without pulling any punches. He will tell the patient that termination of this drinking bout is easily accomplished with a sedative, vitamins, a strict diet, exercise, sleep and unequivocal abstinence. After that, recovery will take place at a slow pace, and only if total abstinence is observed. During the recovery period, the doctor may recommend psychiatry, clinical psychology or Alcoholics Anonymous. He will make a follow-up appointment in the presence of the patient.

Unhappily, most alcoholics will not follow through on the doctor's regimen. Despite the doctor's urging, the alcoholic will terminate his visits the moment he feels well again. Strangely, this man honestly believes his own resolution to quit, plus the horrifying memories of his last experience with alcohol, will keep him sober. On the contrary, sooner or later, emotional pressures will mount again. Even if the doctor has emphasized that one drink will again trigger a bout of drinking, the alcoholic will rationalize until he convinces himself "this time will be different." Essentially, this is the crux of the matter—the prime factor, the true nature of the illness. The alcoholic does not yet believe he **cannot drink**, and that he is powerless over alcohol.

The psychiatrists have fared little better in effecting a "cure" in the sense that the patient can return to social drinking. Successful cases reported in the United States and England constitute only a handful. Once the drinker has crossed the line into alcoholism, social drinking appears not to appeal to him. So-called "normal" drinking has never been his way. The euphoria he sought did not come with moderation. He drank to get "high" on alcohol. Why, he asks, should he want to return to a pattern he never followed in the first place."

Some directions the sociologists are following look promising. Environment promoting stability or security in child relationships is not usually found in homes where a parent is alcoholic. Alcoholism, though not inherited, runs through families from generation to generation because of environmental disturbances. The study shows that in 100 children from homes with an alcoholic parent, 23 per cent showed behavior characteristics in school such as absenteeism, lateness, sleepiness, inattention, disobedience, even rebelliousness. Where as in 100 "normal" homes, only 3 per cent of the children showed these characteristics.

Explorations such as these have prompted the Commission on Alcoholism to explore the field of prevention through education. Would a factual presentation on alcohol lead to less drinking, and, eventually, to less alcoholism in Iowa? Can the total of 50,000 alcoholics in Iowa be reduced? Can the ratio of alcoholics in our population of 2.7 million be lowered? These are facts of the total problem that must be studied.

Psychological recovery begins as physical treatment terminates. Unhappily, for most alcoholics under treatment, all treatment ceases when physical well-being is restored. In spite of the doctor's urging, the alcoholic will usually terminate his clinical visits when he feels fit again. He honestly believes his resolution to quit drinking, plus the horror of his past experiences with alcohol, will keep him sober.

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SUGGESTED STUDENT ACTIVITIES

The activities suggested in the following list have all been tried by instructors and have been found successful in motivating student participation. Learning is accepted as an active procedure. Therefore, it follows that selected projects which are appropriate within the resources of the school and the community will enhance the learning process.

Since these suggestions serve only as a guide, and since they are itemized for convenient reference, they include a broad spectrum of interest from which the instructors may choose.

1. Organize a panel to prepare and present a report on alcoholic beverage control in Iowa.
2. Determine the number of outlets for alcoholic beverages in your city or community.
3. Determine the ratio of adult people to alcoholic beverage outlets in your community.
4. Determine the rate of federal and state taxation on various kinds of alcoholic beverages.
5. Compare the volume of alcoholic beverage advertising to the total amount of advertising in several magazines or newspapers.
6. Determine the incidence of accidents involving the drinking driver and the total number of accidents in Iowa in a given year. Compare this for the entire United States.
7. Contact clergymen in your community to determine the attitudes of different churches toward drinking and their attitudes toward alcoholism.
8. Determine how many recreation facilities are available for young people in your community.
9. Arrange to visit a local court to hear a case involving a "driving while under the influence" charge.
10. Consult Iowa motor vehicle laws to determine penalties for "driving while under the influence."
11. Consult personnel managers to determine the relation of excessive drinking and time lost of workers in industry in your community.
12. Visit and report on the work and facilities of the Salvation Army or other social agencies helping problem drinkers.
13. Arrange to visit an open meeting of Alcoholics Anonymous. Report to the class on the visit.
14. Read and list the twelve steps of Alcoholics Anonymous. Report to the class how these steps help alcoholics to stay sober.
15. Visit the local police station and find out if the police use any form of chemical testing to determine alcoholic influence. Report to the class.
16. Read and compare the statement of objectives and philosophy of organizations interested in alcohol education.
17. Arrange for a visit to an outpatient clinic or information center to determine how alcoholics and their families can be assisted.
18. Prepare a chart showing the effect of various amounts of alcohol on reaction time.
19. Obtain films for showing to the class. Discuss the content of the films.

20. Prepare a chart to show the distribution, oxidation and elimination of alcohol in the human body.
21. Obtain the information and prepare a chart showing the comparison of drunkenness arrests to other law violations in your community.
22. Illustrate by means of a chart how alcohol affects the central nervous system (brain).
23. Keep a scrapbook of news stories, articles, pictures and cartoons about the use of alcoholic beverages.
24. Prepare a chart showing the nutritional value of alcoholic beverages in comparison to other foods and beverages.
25. Invite a member of Alcoholics Anonymous to speak to the class.
26. Organize a committee to prepare slides showing important data and concepts about alcohol or alcoholism.
27. Prepare a scrapbook of alcoholic beverage advertisements and try to determine the nature of the sales appeal.
28. Find out what Federal and state controls are in force to control advertisements of alcoholic beverages.
29. Organize a panel and present the arguments for and against advertising of alcoholic beverages.
30. Have a panel present a brief history of alcoholic beverages.
31. Have a panel present a brief review of cultural differences in the use of alcoholic beverages.
32. Prepare a chart comparing the amount of money spent on alcoholic beverages in the United States with expenditures for schools, recreation, food and other commodities.
33. Prepare a news story about the study of alcohol problems in your school and send it to your local newspaper.
34. Prepare a panel report on the movement that led to enactment of the Eighteenth Amendment to the Constitution of the United States; also the Twenty-First Amendment.
35. Have a panel study and report on control systems used in England, Italy, France or other countries.
36. Develop a series of short paragraphs which present situations that involve young people drinking. Consider each of the individuals and use these descriptions as a basis for class discussion.
37. Make a cartoon or drawing showing the needs which people try to meet through drinking.
38. Make a drawing or chart showing reasons people give for drinking.
39. Prepare a chart showing some of the desirable personality traits and indicate the possible effects of excessive drinking on these traits.
40. Invite well-informed resource people to discuss certain aspects of the alcohol problem.
41. Prepare a chart or drawing showing reasons that people use for not drinking. Discuss these reasons.

EXPERIMENTS

Most high school chemistry tests and laboratory manuals include information and experiments about alcohol. Care must be exercised to avoid incorrect inferences from experiments. What happens to a laboratory animal or to chemicals will give background information, but will neither prove nor disprove anything about humans. Experiments should be done by the teachers before they are performed in class. Unless otherwise stated, the alcohol to use is approximately 95 per cent denatured ethyl alcohol. The denaturing agent does not affect the results of the experiments.

The following experiments are of varying difficulty and are suggested for high school science classes.

I. How may alcohol be made?

Refer to a chemistry laboratory experiment manual.

Note: It is illegal for anyone to make alcohol without a permit, except for scientific purposes.

II. What is pure alcohol like?

1. Pour some pure ethyl alcohol into a small beaker. Note its waterlike appearance, odor, and volatility.
2. Fill a 500 ml. cylinder to within $2\frac{1}{2}$ to 3 inches of the top with alcohol. In like fashion put water in a second cylinder. Float a hydrometer in each of the two cylinders and take readings. Note the difference.

III. Will alcohol burn?

Place 5 to 10 ml. of alcohol in an evaporating dish and ignite. Extinguish flame in a few moments by placing a water glass over the dish to exclude oxygen. Note the result. Compare with water.

IV. What is formed when alcohol burns?

1. Into an 8 oz. wash bottle place about three-fourths of an inch of limewater. Fill a deflagrating spoon with alcohol and ignite. Insert burning alcohol into bottle and hold above the limewater until the flame goes out. Remove spoon. Cover bottle and shake. Note the change in the limewater. Can you explain the change which occurs?
2. Place a deflagrating spoon containing burning alcohol in a cool, empty 500 ml. flask for a few moments. Remove quickly and examine the flask. Note the result. What collects on the sides of the flask?

Comment: The above two experiments also show that alcohol contains carbon and hydrogen. The end products of oxidation of alcohol in the body are also carbon dioxide and water.

V. What is a product of the partial oxidation of alcohol?

Make a coil by winding about five turns of clean copper wire (about 20 gauge) about a pencil. Heat it to redness and immerse in a test tube of alcohol several times. Smell the contents of the test tube. Smell a bottle of acetaldehyde from the reagent shelf. Compare the odors. What is formed?

Comment. Take care not to ignite the alcohol.

VI. Is alcohol a good solvent?

1. Crush a small mothball (naphthalene) and place half in each of two test tubes. Add 50 ml. of alcohol to one and 50 ml. of water to the other. Cork each and shake for two or three minutes. Which is the best solvent for naphthalene?

2. Into each of two 8 inch test tubes place 30 ml. of benzene. Add 30 ml. of alcohol to one and 30 ml. of water to the other. Cork and shake. Does benzene mix freely in each solvent?
3. Place a crystal of iodine in each of two test tubes. Add 30 ml. of alcohol to one and 30 ml. of water to the other. Cork and shake. Which is a solvent for iodine?
4. Grind up two or three geranium leaves or some grass on a pestle and mortar. Add 50 ml. alcohol and grind again. Decant the liquid into a beaker and observe. Can you conclude the alcohol is a solvent for chlorophyll?

Comment: Experiments in this group illustrate one of alcohol's chief uses in industry—its ability to dissolve certain materials. Do not conclude that alcohol will dissolve body tissues.

VII. What is a test for alcohol?

In a test tube place about one ml. of the liquid to be tested. Add two or three ml. of water and four to five ml. of a 10% solution of iodine in KI (prepared by dissolving 10 g. of water). Add NaOH solution (10% to 20%) drop by drop until the brown color of the iodine is discharged and the liquid retains only a yellow color. A yellow precipitate indicates the presence of alcohol in the original solution. Warm to 60 degrees C. if necessary. Several medicines may be tested for alcohol.

VIII. Does alcohol consumption affect the growth of animals?

Put two similar **young growing** laboratory animals (rats or hamsters) in separate cages with the same kind of bedding, food, and water. One serves as a control. Give the other 4 drops of whiskey with an eye dropper the first day, and increase the dose one drop daily for 30 days. Keep notes on behavior and body weight. Prepare a graph of the result in changes of body weight.

Comment: Many factors may cause varying results. Typical results are these. The alcohol-consuming rat becomes irritable—possibly because of B1 deficiency, is variable in eating habits, fails to gain as fast as the control rat, and is sluggish.

IX. Is alcohol a stimulant or an anesthetic?

(Teacher demonstration)

1. Normal rat behavior

Hold a rat by the tail and bring him near an object. He reaches for it. Place a rat on his back and he rights himself immediately. (The righting reflex.) Place your finger near his eye and he blinks. (Corneal reflex.) Suspend a rat with his tail between your palms. Impart a spin to him by sliding your hands in opposite directions as you drop him a few inches to the table. He falls on his feet like a cat.

2. Alcoholic rat behavior

Select a rat of approximately 150 to 200 g. for this experiment. Do not feed him for six hours prior to the experiment. Combine 5 ml. of 190 proof pure alcohol (no denaturant) with 5 ml. of distilled water. For each 18 grams of body weight inject 0.1 ml. of the alcohol solution into the peritoneal cavity of the rat (e.g., inject 1.0 ml. into a 180 gram rat).

To hold the rat tie his hind legs to a table or other support and place your thumb and forefinger of one hand about his neck against his lower jaws. Stretch him firmly and hold in a vertical position. Be careful not to puncture the viscera by

going too deep, or the diaphragm by going too near the rib cage, or to make a bubble just beneath the skin by going too shallow. About $\frac{1}{4}$ inch deep is about right. After two minutes try the above mentioned tests for normalcy.

Results: The blood should have an alcohol concentration of about 0.23 per cent. Depending on the degree of intoxication you have produced, he will behave as follows: If less than 0.2 per cent, the rat is sluggish and falters in grasping objects. At 0.2 per cent, he has lost his righting reflex. At 0.4 per cent, he has lost his corneal reflex and is unconscious (dead drunk).

X. Does alcohol diffuse faster than foodstuffs?

(Teacher demonstration)

In a 400 ml. beaker make a starch emulsion by mixing one-third teaspoon of starch in 150 ml. of cool water. Stir to prevent scorching and bring to a boil. Cool and pour a few mls. into a test tube for use later. Place a 6 inch square of non-waterproof clear cellophane (such as gift wrapping) over the 400 ml. beaker containing the starch; fold over the edges and bind very tightly with a heavy rubber band. Fill two 1,000 ml. of beakers about half full of water at 115 degrees F. and add to each beaker 6 drops of tincture of iodine or enough to give a definite yellow color.

Invert the 400 ml. beaker and place in one of the 1,000 ml. beakers containing iodine. Place the few mls. of starch set aside in the other 1,000 ml. beaker and observe the change when starch and iodine combine.

Dissolve a few crystals of potassium permanganate in about 25 ml. of water and add a ml. or two of this solution to a 1,000 ml. beaker containing 800 ml. of water at 115 F. so that a faint but definite purplish pink color develops. Add a few drops of HCl to acidify the solution. Pour half of this solution into another 1,000 ml. beaker. Put 150 ml. of alcohol into a 400 ml. beaker and bind a cellophane sheet over the top. Invert and place in one of the beakers containing the KMnO_4 . Use the other one for comparison. Fill a test tube about half full of a faint warm KMnO_4 solution which has been acidified with a few drops of HCl and add about 5 ml. of alcohol. Notice what happens when alcohol and KMnO_4 comes together. In five minutes examine the beakers. Which substance is diffusing through the membrane faster? Examine again in 30 minutes.

Comment: The KMnO_4 should clear in about 10 to 20 minutes. The starch will not diffuse and produce the blue color even if left several days.

SUGGESTED TOPICS FOR CLASSROOM DISCUSSION

The following items are examples of questions which may be used by teachers to stimulate discussion.

It is important that great care be taken to allow the students freedom of expression. Patience and skill on the part of the teacher is essential lest the students feel they are being told rather than being allowed to do their own thinking. By carefully injecting questions, the teacher can guide the discussion without intruding on the students' right to decide. Any student challenging the position of the group should be called upon to substantiate his arguments. This can lead to fruitful and eager study as well as the best possible preparation for meeting future citizenship and civic responsibilities.

An effort should be made to see that one or two students do not dominate the discussion and that the approach remains objective. Embarrassment of students whose parents may have exceptional involvements should be avoided whether it be alcoholism or participation in some phase of the liquor business. Discussion should revolve around problems, not personalities.

A. Psychological

1. Are drinkers always trying to forget their troubles?
2. Why do people drink?
3. After a person has a couple of drinks is he "braver"? Why?
4. Why may drinking make a person want to "show off"?
5. Is alcoholism merely a question of will power?
6. Is alcohol a stimulant or depressant?
7. How does the excessive use of alcohol affect the personality?

B. Economic

1. Is drink a waste of money?
2. Is there anything that a person can gain through drinking?
3. Does drinking affect the amount of work a person can do?
4. Does drinking help one to do better work?
5. Is it more economical for an employer to try to rehabilitate an alcoholic than to replace him?
6. Does drinking help a person to do creative work? (artists, writers, actors)
7. Does advertising increase the sale of all alcoholic beverages or does it only increase the sale of the particular brand of alcoholic beverage?
8. Do the alcoholic beverage industries contribute to our economy? If so, how?
9. What economic liabilities or losses result from the excessive use of alcoholic beverages?

C. Social

1. Does excessive drinking cause family troubles?
2. Do family troubles cause drinking?
3. Must a person drink to be popular?
4. From what social group does the largest percentage of alcoholics come?
5. How has drinking affected the lives of some authors?

6. Would you choose a mate who drinks excessively?
7. Why do people drink? What reasons do they give? Are these reasons sound?
8. Is it fair to hurt others by one's drinking?
9. Is a person fair to himself when he drinks?
10. Is it courteous for a person to insist that another person have a drink?
11. How may one gracefully refuse a drink when it is offered to him?

D. Civic

1. How can drunken driving be reduced or eliminated?
2. Why should there be laws to regulate the sale of alcoholic beverages?
3. How could excessive drinking keep a person from being a good citizen?
4. How can a policeman tell when a driver is "under the influence"?
5. What are Iowa's laws regarding driving while "under the influence"?
6. Should people who drink be allowed to drive?
7. Is a person a safe driver after he has had a couple of drinks?
8. Is it true that a little alcohol increases the skill of many persons operating an automobile?

E. Physical and Mental

1. Can anyone drink alcoholic beverages without injury to his health?
2. How does alcohol affect the liver, heart, and circulatory systems of the human body?
3. Can alcohol contribute to the development of mental illness?
4. Why do some people believe whiskey or brandy is a medicine?
5. Can alcohol be considered a good food? Why is it referred to as an inadequate food?
6. Why do life insurance companies want to know if applicants for insurance drink excessively?
7. Does alcohol really add warmth to the body?
8. How does the excessive use of alcohol affect the life span of a person?
9. What physical and mental disorders are related to chronic alcoholism?

Instructional Material, Film ,Pamphlets, etc. are available for school presentation. Write stating requirements (number of participants, age-range, etc.) to:

ALCOHOL INSTRUCTION

State Office Building

Des Moines, Iowa 50319

For Consultant Training Program, Write:
 University of Iowa Treatment Unit
 Oakdale, Iowa

BIBLIOGRAPHY ON ALCOHOL AND ALCOHOLISM

Drinking Patterns and Related Attitudes

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The following individuals; agencies; and reference material assisted in the preparation of this manual.

The "Iowa Teaching Guide On Alcohol" was prepared by the Iowa State Commission on Alcoholism, assisted by Gordon A. Nelson, Assistant Executive Director, Iowa State Commission on Alcoholism; William Tock, Curriculum Coordinator, Iowa State Department of Public Instruction; and Keith A. Rhodes, artist, Iowa State Department of Health.

The reference material used in this manual includes:

"Alcohol and Alcoholics in Iowa, 1965"

Harold A. Mulford, Ph.D., Professor of Sociology and
Director of Alcoholism Studies,
University of Iowa, Iowa City, Iowa

"Alcohol Education in Utah Schools"

Clyde W. Gooderham, Director, Utah State
Board on Alcoholism, Salt Lake City, Utah

"Alcohol Education in Oregon Schools"

George C. Dimas, Executive Director, Alcohol Studies
and Rehabilitation Section,
State Mental Health Division, Portland, Oregon

The information for the first chapter was prepared by the Iowa Liquor Control Commission.

IOWA LAWS RELATING TO ALCOHOL

ALCOHOL EDUCATION

IN THE

PUBLIC SCHOOLS



MINORS (Possession,
Consumption, Etc.)

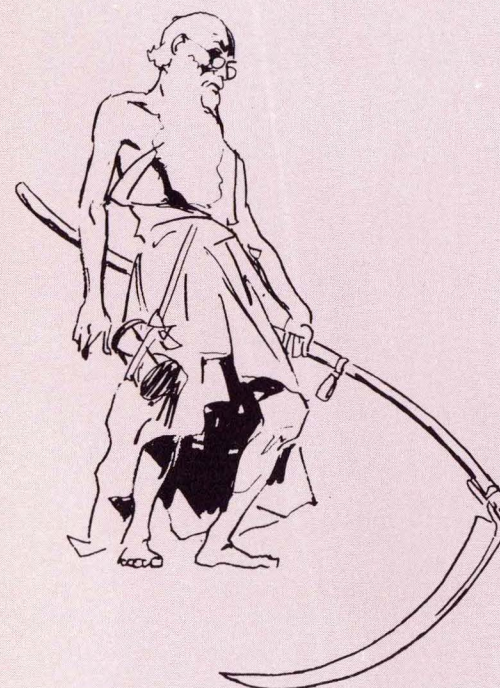
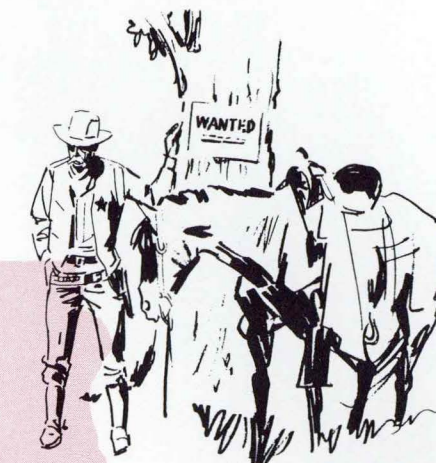
ADULTS (Drunkenness and
Related Alcohol Problems)

ALCOHOLISM STUDY
COMMISSION

ALCOHOL LEGISLATION

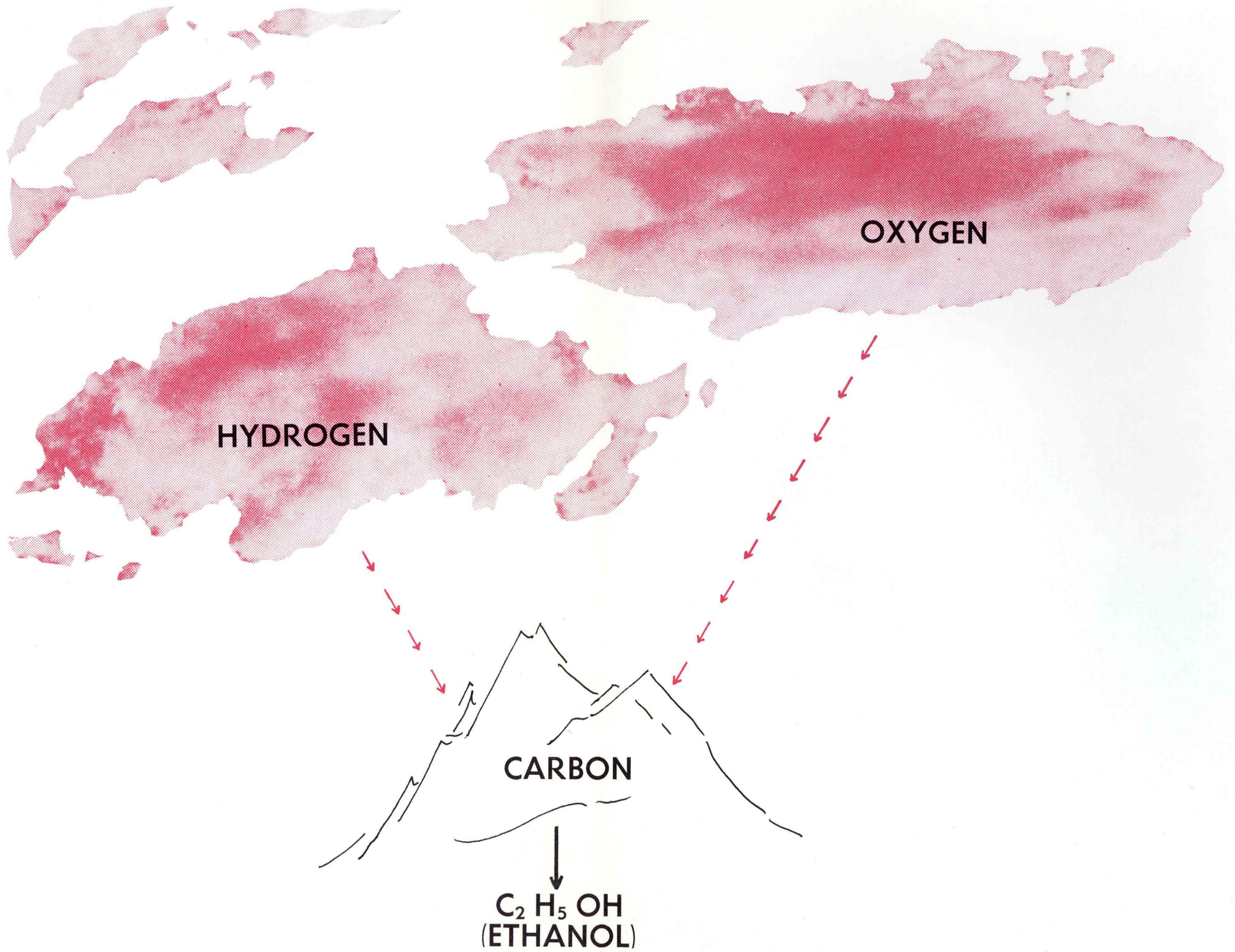


PAST
(PROHIBITION)



PRESENT
(LIQUOR-BY-THE-DRINK)





$C_6 H_{12} O_6$
(GLUCOSE SUGAR)

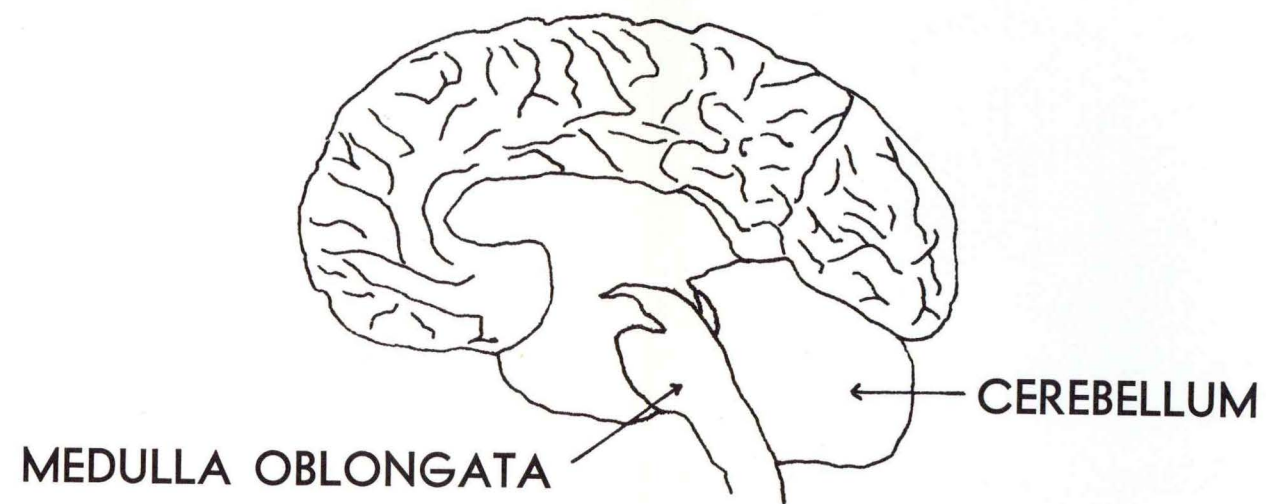
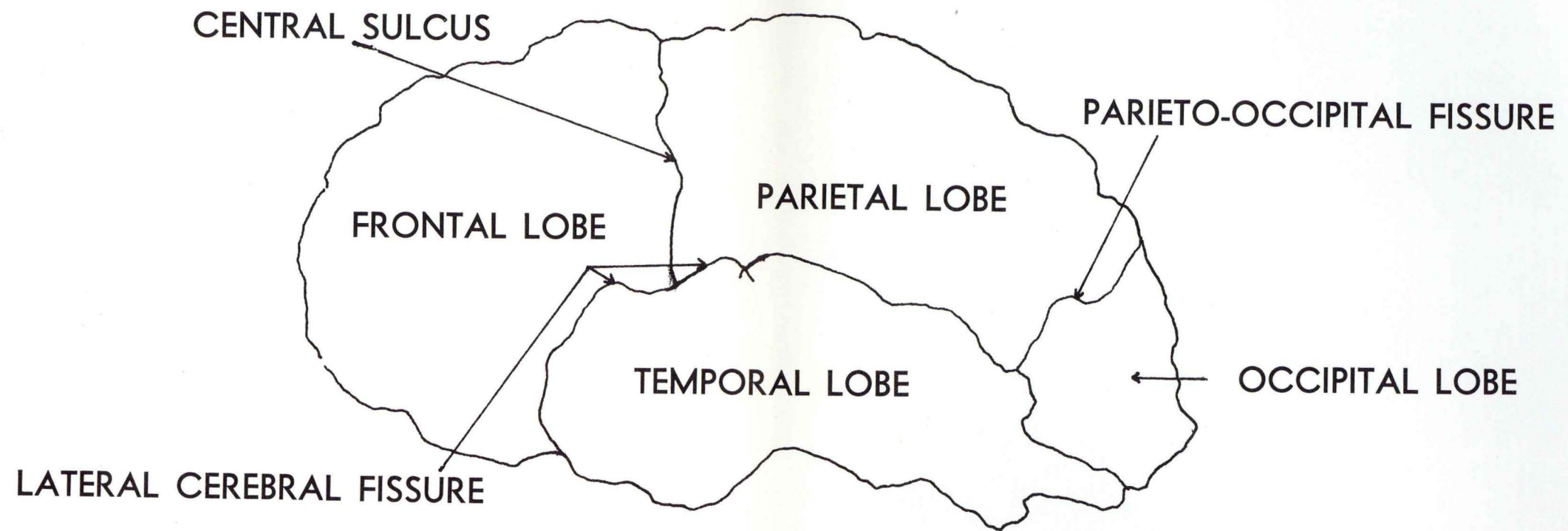
YEAST
ENZYMES

$2C_2 H_5 OH$
(ETHANOL)

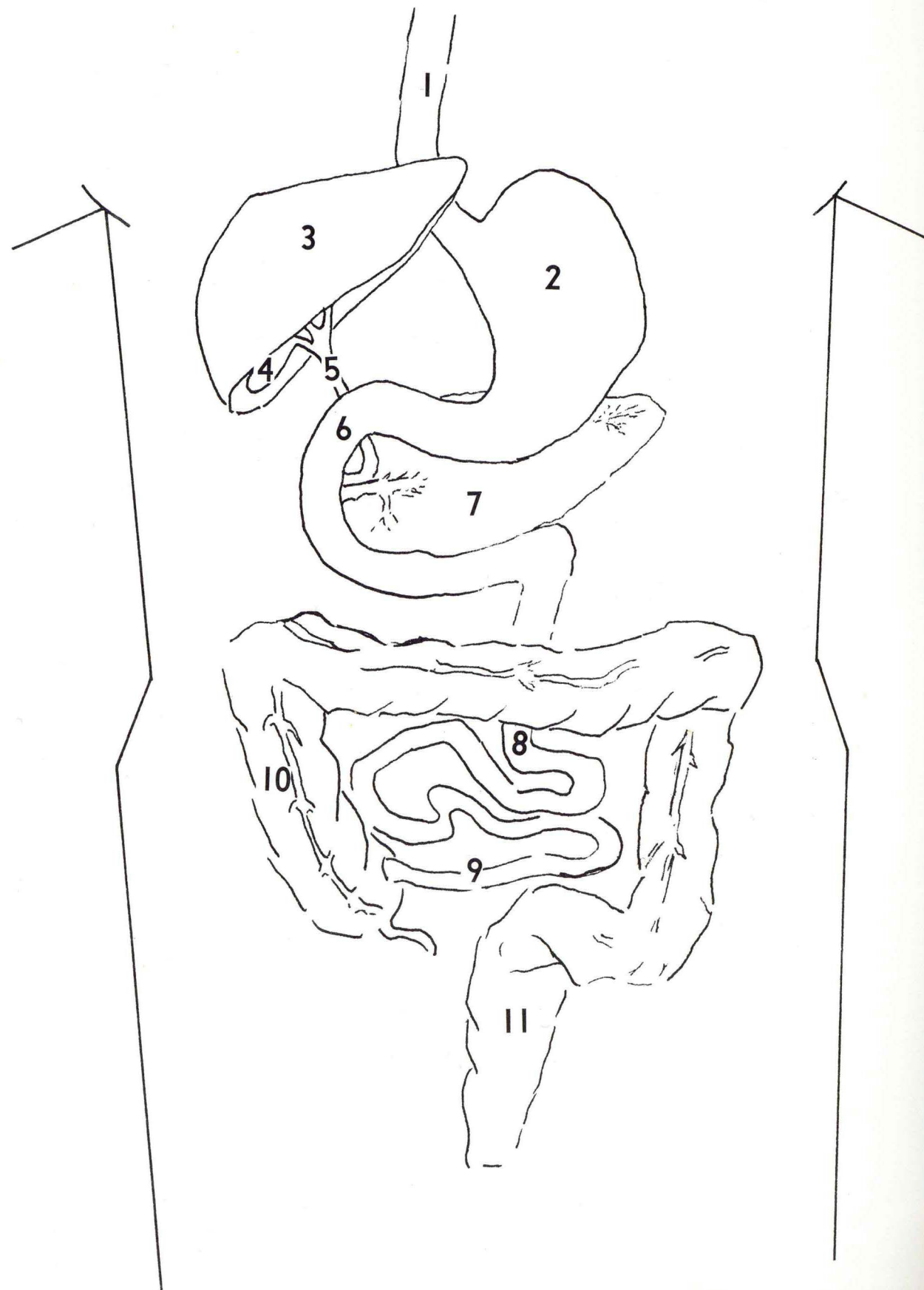
+

$2CO_2$
(CARBON
DIOXIDE)

THE BRAIN



THE DIGESTIVE SYSTEM






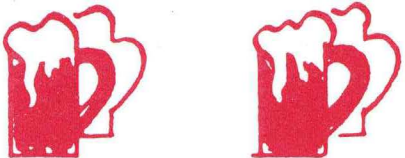


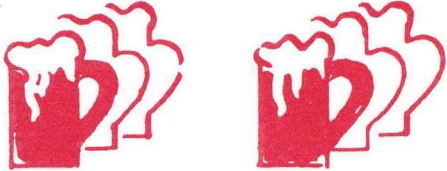

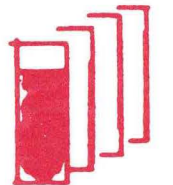
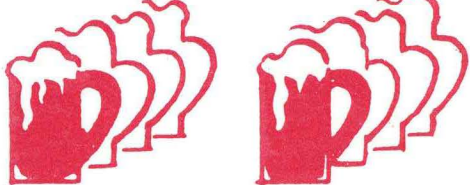

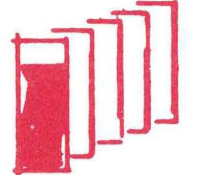
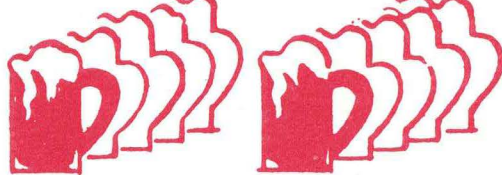


1. ESOPHAGUS
2. STOMACH
3. LIVER
4. GALL BLADDER
5. COMMON DUCT
6. DUO DENUM
7. PANCREAS
8. JEJUNUM
9. ILEUM
10. COLON
11. RECTUM

DRIVER **WAIT** METER*

time allowance chart

IF YOU DRINK**

cocktails	highballs	beer	effects	alcohol concentration in the blood	before you drive WAIT***
 within	or  fifteen	or  minutes	If even one cocktail is taken on an empty stomach, absorption may be so rapid that alcohol piles up in the blood stream for a brief period and produces an exaggerated effect for a short time.	.03%	1/2 hour
 within	or  one half	or  hour	Warmth — mental relaxation — decrease of fine skills — less concern with minor irritations and restraints.	.06%	1 hour
 within	or  one	or  hour	Buoyancy — exaggerated emotion and behavior: talkative, noisy or morose. Perceptible loss of fine coordination.	.09%	2 hours
 within	or  two	or  hours	Clumsiness — unsteadiness — tunnel vision.	.12%	3 hours
 within	or  three	or  hours	Intoxication: Obvious and unmistakable impairment of bodily functions and mental faculties. Even after considerable alcohol has been eliminated, acute hangover symptoms remain.	.15%	5 hours

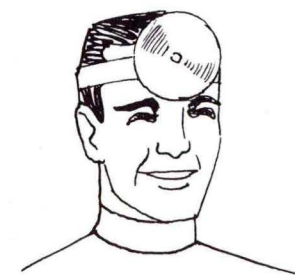
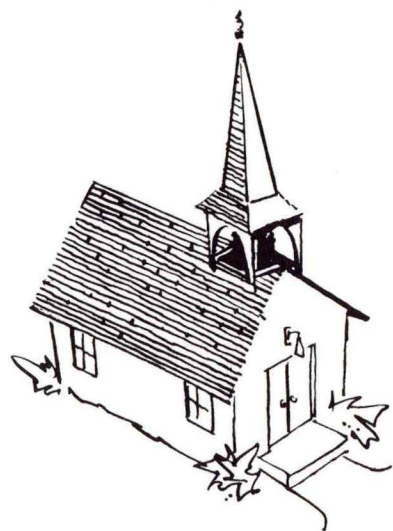
* Based on a person of average size — 150 lbs. The effects will increase or decrease with corresponding weight differences.

** The body reacts quicker to alcohol taken when the stomach is empty.

*** After finishing the last drink.

REASONS WHY PEOPLE DRINK AND ALSO REASONS WHY PEOPLE DO NOT DRINK

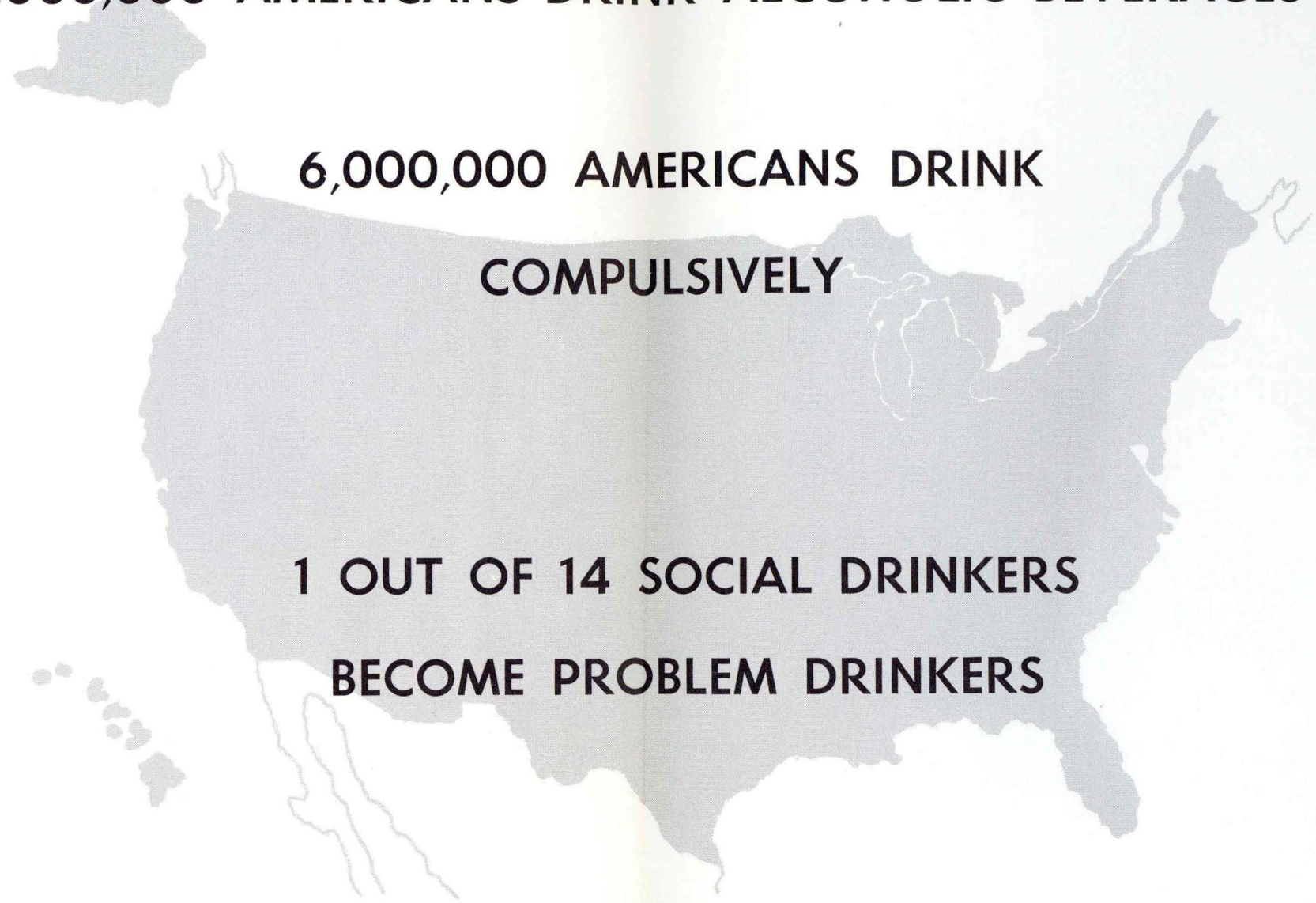
JANUARY 1



**APPROXIMATELY
80,000,000 AMERICANS DRINK ALCOHOLIC BEVERAGES**

**6,000,000 AMERICANS DRINK
COMPULSIVELY**

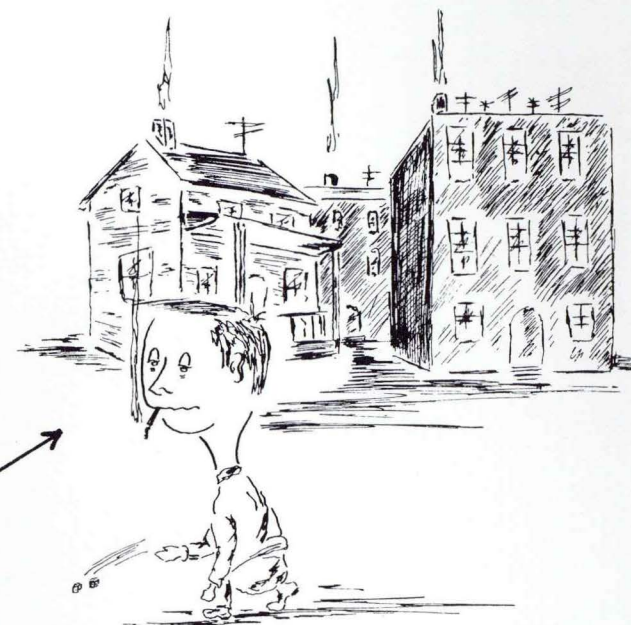
**1 OUT OF 14 SOCIAL DRINKERS
BECOME PROBLEM DRINKERS**



ALCOHOLISM



I CAN MANAGE MY OWN LIFE!



DRINKING DOESN'T AFFECT
MY FAMILY



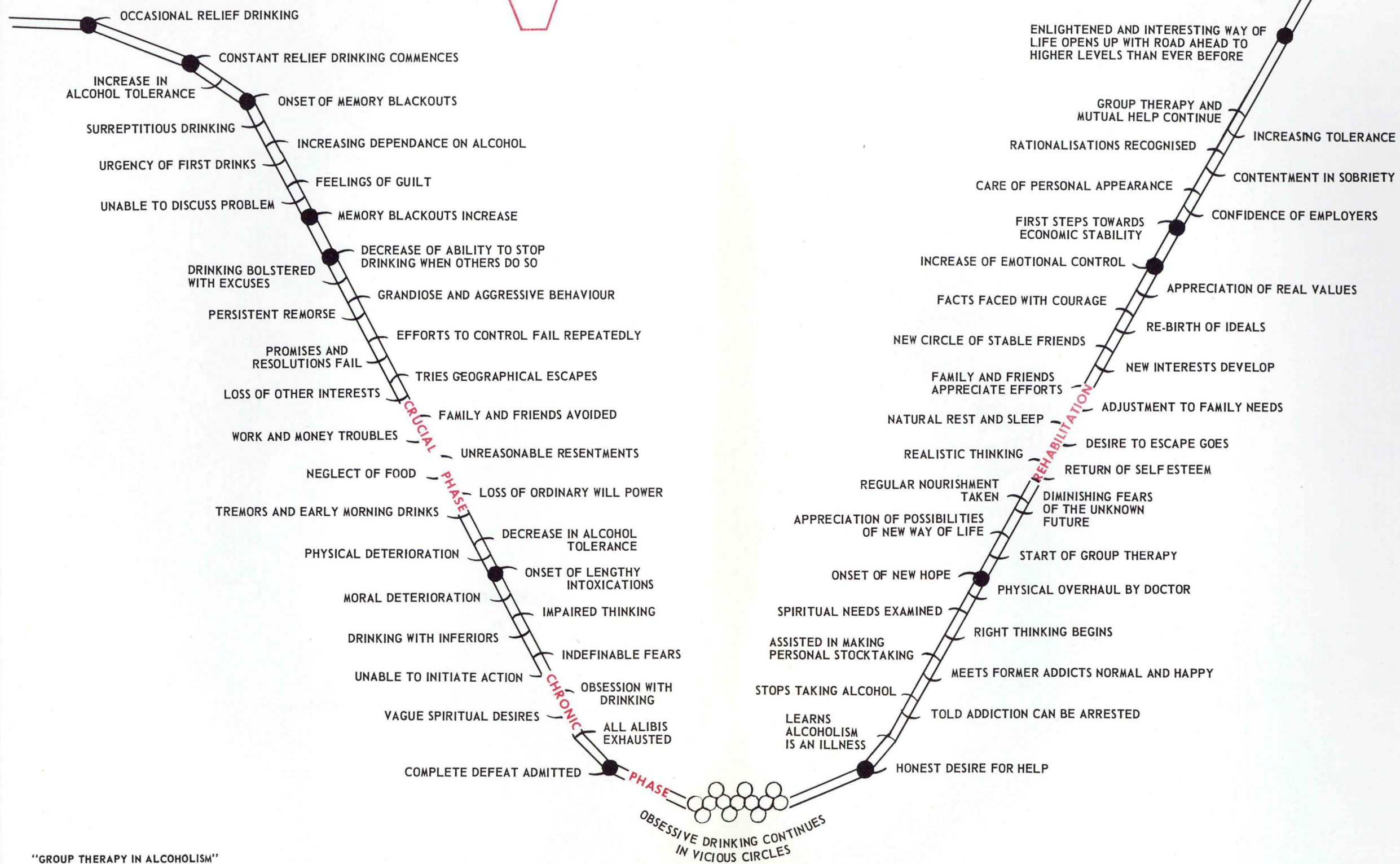
I'M A BETTER DRIVER AFTER
A FEW DRINKS



WHO ME?

I CAN TAKE IT OR LEAVE IT

TO-BE-READ-FROM-LEFT-TO-RIGHT



"GROUP THERAPY IN ALCOHOLISM"
 M.M. Glatt, M.D., D.P.M.
 Warlingham Park Hospital

A CHART OF ALCOHOL ADDICTION AND RECOVERY

Reprinted from
 THE BRITISH JOURNAL OF ADDICTION
 Vol. 54, No. 2

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