

AN
INAUGURAL DISSERTATION

ON

Alcohol

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SUBMITTED TO THE

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BY

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Alcohol.

This is an agent which, when considered in all its bearings, both in a medical point of view, and upon mankind in general, demands the highest consideration from the medical profession and from all those interested in the welfare of the human race. This, we hope to show at least to some extent, though necessarily imperfect, as it would occupy too much time and space to elaborate the subject thoroughly. Alcohol is not a product of nature. It is of Arabic origin. It is highly combustible, and by combustion is converted into carbonic

acid and water. Alcohol is procured from the vegetable kingdom. It is obtained from many of our most common articles of diet, and is the active ingredient of all of our wines, both foreign and domestic. It is derived from vegetable juices, by a process of fermentation. After this, being lighter than the other liquids with which it is mingled, by the application of heat, it is distilled over to itself.

There are various names for it, arising from its different degrees of concentration. Alcohol is a powerful solvent, and on that account is used by pharmacutists for dissolving resins and

resinous articles and for preparing
 tinctures. On account of its active
 solvent power, there are numerous
 preparations of it in the books, and
 there is too great a fondness for
 using them. Dr. Mitchell makes
 the broad assertion, that the ma-
 jority of drunkards are made
 by the doctors. We have no doubt
 that many are made dots through
 the instrumentality of physi-
 cians, but cannot believe that
 they have committed their dep-
 redations so extensively as Dr.
 Mitchell asserts. However, know-
 ing the liability to the establish-
 ment of a tenacious habit,
 perhaps rendering the per-

son useless ever afterwards, an object of scorn to his fellow creatures, and blighting his prospects in life forever, every one who enters the great arena of medicine, occupying so responsible a station, should use great discrimination in the administration of this potent agent. The use of this article has been very much curtailed, owing to the many valuable contributions to the Materia Medica within the last few years, and it is to be hoped that, at no distant day, it will be entirely eradicated from the list of remedial agents.

Is alcohol directly poisonous to the human system? There are numerous well authenticated cases of the kind upon record. It is unnecessary to cite instances of its poisonous action, as but few will have the audacity to deny it. It is absorbed into the circulation through which it exerts its poisonous influence upon the nervous centres. Some say, that it acts upon the brain through the pneumogastric nerve. But this position is hardly tenable. It occasionally, when highly concentrated, produces inflammation of the mucous membrane of the stomach

and bowels. The first condition is treated by emetics, stimulants, epispastics to the epigastric region and the cold douch. The last, by antiphlogistic measures, as in any other inflammation. Therapeutic uses. Alcohol is used as an antiseptic for preserving anatomical preparations. It is employed in the form of fomentations for the relief of scalds and burns and for assuaging local pains. It is used externally as a rubefacient and refrigerant. In the former way, by a compress being saturated in it and applied to the part, and a roller bandage over the compress to prevent evaporation. As a refrigerant,

it is applied without the compress and roller bandage, producing by its evaporation a reduction of temperature, the patient feeling a sensible diminution of the heat of the part.

It is also a stimulant, and is administered in various forms of fever, though generally, when the system is greatly prostrated, or where the stomach is weak and of not sufficient strength to perform its functions properly. In Typhoid fever it is a most valuable agent in the state of collapse. It is given often and in small quantities at a time. Prof. Liebig says, that alcohol unites with the oxygen in the system causing an increase of temperature. Now, in

the above disease, the patient becomes very much emaciated by the rapid combustion taking place internally, produced by the burning fever, thereby destroying the fatty matters upon which the system depends for its sustained and temperature; and alcohol, as a stimulant, to sustain the vital powers and supply the deficiency of animal heat, must be the very remedy for it. Some use it from the beginning of the disease, and this practice has proven very successful. There are many advocates for the expectant mode of treatment. But in comparing the two, the former has been found to be, by far the most efficient. This article is also employed

in concussion of the brain, and in severe injuries to the system, to prevent it from sinking under the great depression caused by the shock. It is also used in severe surgical operations for the same purpose. But great caution should be taken, especially, in the first condition, lest it be carried too far, producing too great a reaction, which in all probability would establish inflammation of the brain. It is valuable in almost every exhausted state of the system. It is said, that, when diluted with water and injected into the urethra, it cures gonorrhoea very speedily. It was thought fit by the writer to give the history, properties and therapeutics

tical uses of Alcohol, and ^{then} show how it affects the healthful system, and to dispel, or rather, disprove, some of the notions entertained by the masses. It cannot be possible that, if the various functions of the body work together harmoniously, alcohol, a powerful stimulant, would be beneficial by maintaining the health. According to the most scientific writers of the day, alcohol is poisonous to the healthful operations of the system, and moreover that, it renders the latter more susceptible to most diseases. But more of this as we proceed. Let us first, examine some of its effects upon the main constituents of the blood. Al-

alcohol will coagulate albumen. Now as physiologists admit that, albumen is transformed into fibrine by the chemical and vital changes it undergoes within the system, it is but reasonable to suppose that, anything which so affects the albumen must, when taken internally, be injurious to the nutritive operations.

We know that, by any ordinary potations, the alcohol would not coagulate the albumen, owing to the resistance of the vital forces, but it is highly ^{likely} _{probable} that, it may so affect it, as to retard greatly, the changes necessary to its elaboration into the plasma of the blood. Alcohol also diminishes the solidifiability of the fibrine. Dr.

Percy showed by injecting alcohol into the blood vessels of animals, that the blood was rendered much more fluid, and generally remained uncoagulated after death. Were again we see its ill effects in disorganizing the fibrine, hindering greatly the reproductive operations of the system, the latter, being the means of repairing the waste caused by the vital actions. This is well illustrated, in those who indulge greatly in strong drinks, by the tediousness of the healing processes after the reception of injuries. Sometimes, in such individuals, a mere scratch will cause an ulcer which is quite difficult to cure, and will occasionally prove fatal by exhaustion and irri

tation. In fact, there is a phagedenic ulceration of the inferior extremities, produced in those, who indulge in wines and the like. And moreover, fatal erysipelatous inflammation, may ensue from a mere abrasion of the cuticle. This, is no doubt, owing to a want of proper consistency in the fibrinous element. Now any one with common sense, will agree, that, a person in this condition, must be more susceptible to the causes operating to produce disease, and must, succumb more readily, to any affection that may ensue. And this accords with the observations of those who have had the control of such cases, surgeons disliking to use

the knife, because of the deficiency of the reparative apparatus. Another effect. It is found that, when alcohol is mingled with fresh arterial blood, the latter is changed to a venous hue, and the red corpuscles are made to shrink and effuse their contents into the liquor sanguinis. The darkened aspect of the blood is, perhaps, owing to the combination of the alcohol with the oxygen, resulting in the formation of carbonic acid and water, which of course, throws more labour upon the liver and lungs, to eliminate it. The opinions of the most enlightened physiologists of the present day are, that the red corpuscles help to form the fibrine,

and are also carriers of oxygen. Here, again, the processes of aeration and nutrition, must be greatly impaired by the accumulation of carbonaceous matters within the system, and by destroying the red corpuscles which are subservient to the above mentioned functions. After seeing how this powerful agent deranges the several components of the blood, destroying their equilibrium, which is so essential to the wonderful and uniform phenomena occurring, necessary to replace the waste constantly taking place, and to keep the due performance of the functions of the various organs of the body, we must inevitably conclude that it is

very pernicious to the healthful functions of the system. Besides all this, the stimulating influence of alcohol, must play an important part, in deranging the functions, and indirectly, and sometimes, directly, producing disease, as intimated before. A state of depression, is admitted to be the most favorable condition for the production of disease, and alcohol, by stimulating the organs, must weaken them greatly, and consequently, make them less able to resist any cause that may be in operation. Many are impressed with the erroneous idea that, alcohol will shield them from disease, especially epidemics, the very thing that renders them more susceptible. We will take

as an example, Cholera. When this horrible
malady is raging, exciting terror in the
minds of the people, many, being impreped
with this fatal notion, resort to ardent
spirits and fall victims to its ravages. It
has been noticed that, in cities where
cholera was prevailing, numerous in-
stances where persons, of pose^d alike
and similarly situated, some being
temperate and others intemperate, the
latter fell, whilst the former escaped
unscathed. We did intend to give some
of the diseases that alcohol gives rise
to, but have since deemed it un-
necessary, as it can be readily per-
ceived how it may act as a predis-
posing cause to most diseases, and
exciting to some. Alcohol, not

only, deranges the vital actions, disor-
 ganizing the blood, diffusing itself
 through every tissue of the human
 economy, but destroys reason, the con-
 necting links between man and the
 Deity. Plutarch's Morals, has these
 remarks, "they, usually prove wine
 bibbers and drunkards, whose parents
 begot them when they were drunk;
 wherefore, Diogenes said to a cracked
 brain and half witted youth, severely,
 young man, thy father begot thee,
 when he was drunk. And Burton,
 the author of the Anatomy of Melan-
 choly, remarks, that, if a drunken
 man gets a child, it will never, likely,
 have a good brain. And moreover,
 there are well authenticated instan-

ces on record, where the parents being
 in a state of intoxication at the time
 of coition, their offspring came into
 the world, idiots. Besides all this, it
 has been discovered by distinguished
 observers, that, persons, endure cold much
 better without it, than with it, can per-
 form more physical and mental la-
 bour without it, than with it, and
 generally live longer without it, than
 with it. Total abstinence is the
 only safeguard. Touch not, taste
 not, handle not, the unclean thing.
 We have reserved our most potent ar-
 gument for the last. And that, is
 this, that Samson, the strongest
 man that ever lived, that prodigy
 of human strength, who pulled

up, and on his shoulders bore, the gates
 of Asra, post, and massy bar, up to the hill
 by Hebron, seat of giants old, and slew
 three thousand Philistines, with the jaw
 bone of an ass, never touched a drop
 We will give the beautiful lines of
 Milton, ~~as~~ proof,

Chorus.

Desire of wine, and all delicious drinks,
 Which many a famous warrior overtook,
 Thou couldst not repress; nor did the dancing
 Sparkling out-pour'd, the flavor or the smell,
 Or taste that cheers the heart of gods and men,
 Allure thee from the cool crystalline stream.

Listen to Samson.

Wherever fountain or fresh current flowed
 Against the eastern ray, translucent, pure
 With touch ethereal of heaven's fiery rod,

I drank, from the clear milky juice allaying
 Thirst, and refreshed; nor envied them the grape
 Whose heads that turbulent liquor fills with fumes.

Chorus.

O madmen, to think ease of strongest wines,
 And strongest drinks, our chief support of health,
 When God, with these forbidden, made choice to
 rear

His mighty champion, strong above compare,
 Whose drink was only from a liquid brook!