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Plumbing ordinance.

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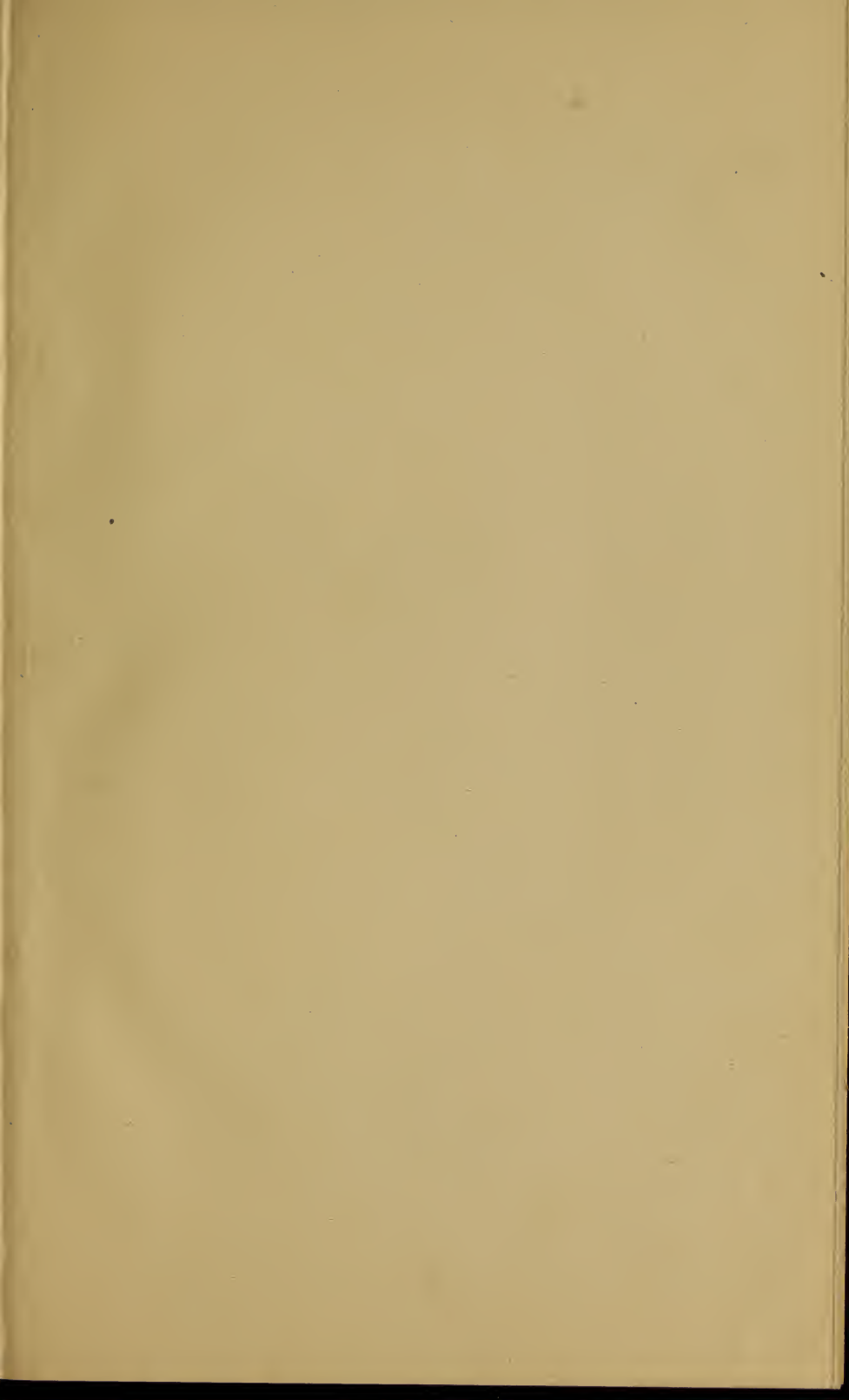


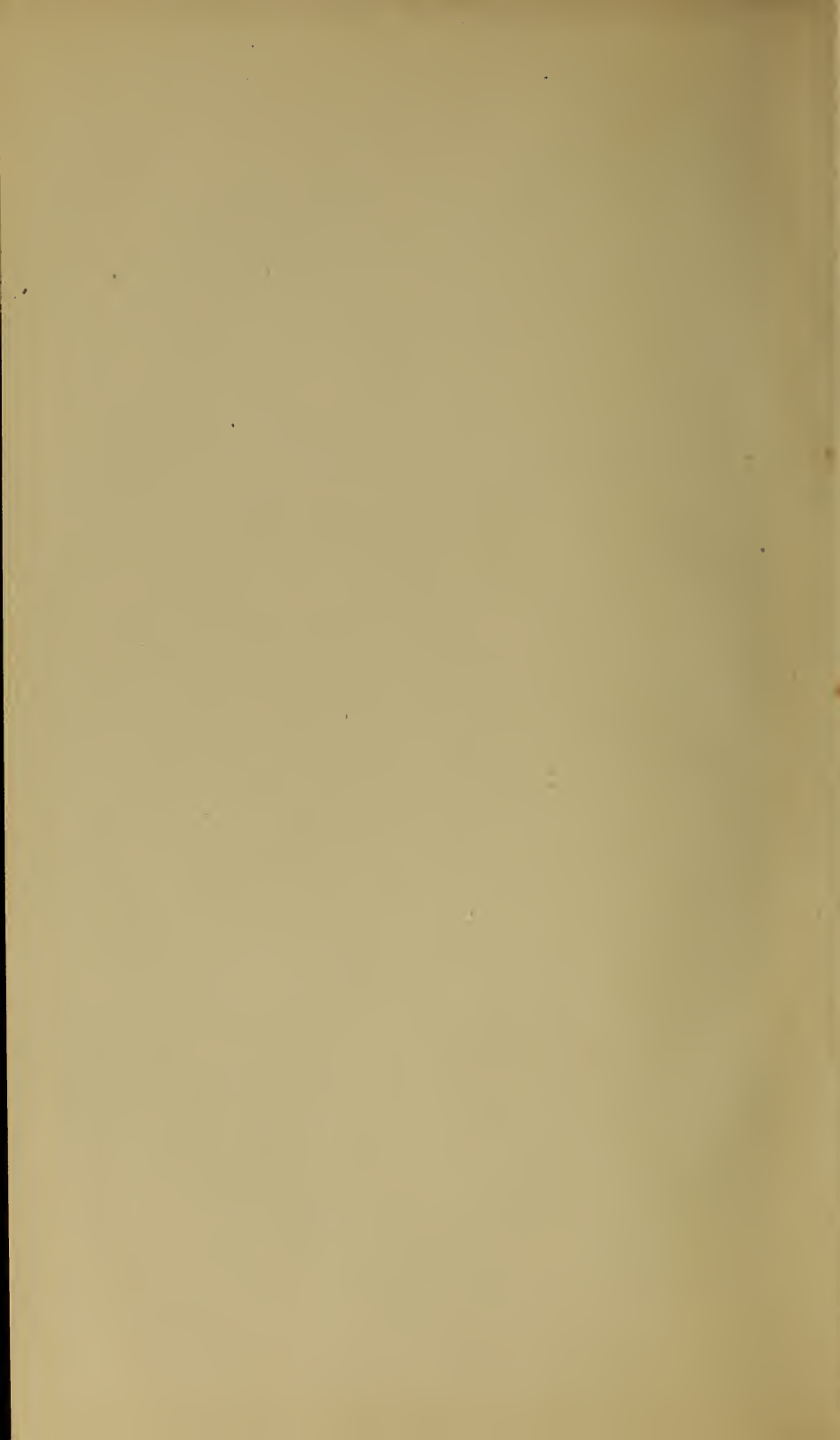
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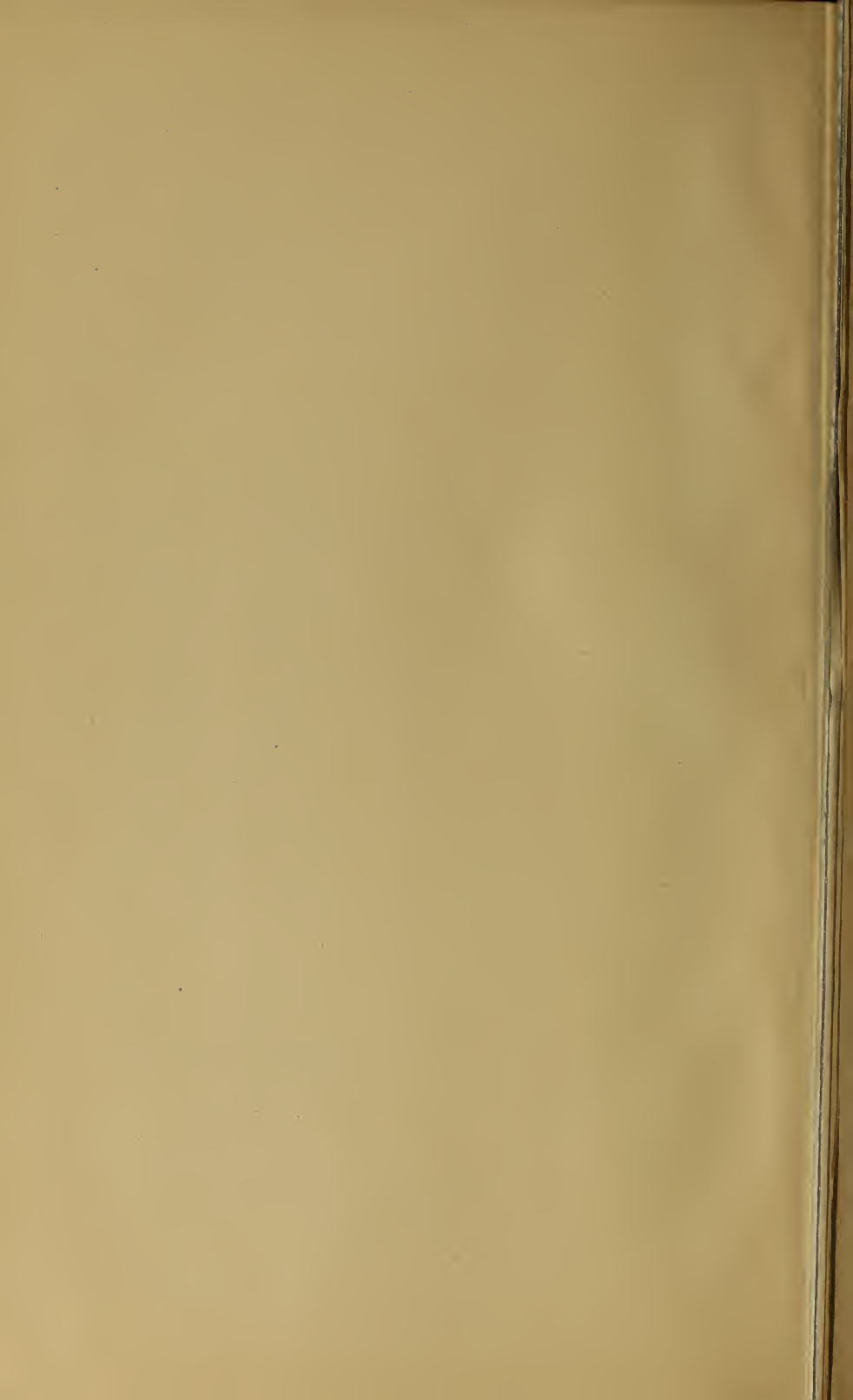
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PLUMBING ORDINANCE

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Chicago. Ordinances, etc

PLUMBING ORDINANCE

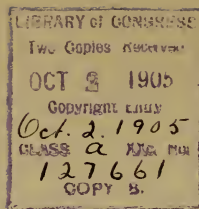
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CHAPTER XLVIII.

PLUMBERS AND PLUMBING.

ARTICLE I.

PLUMBERS.

1604. **Certificate.]** Any person now engaged in, or hereafter engaging in, or working at, the business of plumbing in the city, either as master plumber or employing plumber, or as a journeyman plumber, shall obtain a certificate as to his competency to engage in such business in such manner as is hereinafter provided.

1605. **Application—examination.]** Any person now engaged in the business of plumbing, or who may desire to engage in such business, either as a master plumber or employing plumber, or as a journeyman plumber, shall make application to the board of examiners, hereinafter provided for, and shall, at such time and place as said board may designate, undergo such examination as to his qualifications and competency to engage in such business, or to continue to engage in such business, as the said board of examiners may direct. Said examination may be made, in whole or in part, in writing, and shall be of a practical and elementary character, sufficiently strict, however, to test the qualifications of the applicant.

1606. **Board of examiners.]** There is hereby created a board of examiners of plumbers, consisting of three members, one of whom shall be the commissioner of health, who shall be (*ex officio*) chairman of said board of examiners; a second member who shall be a master plumber and a third member who shall be a journeyman plumber. Said second and third members shall be appointed by the mayor, by and with the advice and consent of the city council. Each of said second and third members so appointed shall, before entering upon the duties of his office, execute a bond to the city, in the sum of five thousand dollars with sureties to be approved by the city council, conditioned for the faithful performance of the duties of the office to which they have been appointed.

1607. **Secretary.]** The mayor shall appoint, by and with the advice and consent of the city council, a secretary to said board of examiners, and it shall be the duty of said secretary to preserve and

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keep all records, books and papers which are required by law to be kept by, or filed with, said board, and to do and perform such other services as may be from time to time required by the said board of examiners. The person appointed secretary shall, before entering upon the duties of his office, execute a bond to the city in the sum of five thousand dollars, with sureties to be approved by the city council, conditioned for the faithful performance of the duties of his office.

1608. Powers of board—fees.] Said board shall examine applicants as to their practical knowledge of plumbing, house drainage and plumbing ventilation; and if satisfied as to the competency of any such applicant, and upon payment to the city collector of the fee hereinafter provided for, shall issue a certificate to such applicant, authorizing him to engage in or work at the business of plumbing, either as master plumber or employing plumber, or as a journeyman plumber, as the case may be, and according to the terms of the application made by such applicant. The fee for the examination and certificate of a master plumber or employing plumber shall be five dollars, and for the examination and certificate of a journeyman plumber it shall be one dollar. All fees received for said examinations and certificates shall be paid into the city treasury.

1609. Non-compliance with article—work not to be inspected.] Any plumber who has not complied with the provisions of this article and obtained the certificate described in section 1608, or a certificate from a board of examiners of plumbers of any other city, town or village in accordance with the provisions of an act of the legislature entitled "An Act to provide for the licensing of plumbers and to supervise and inspect plumbing," in force July 1, 1897, shall not be entitled to have his work inspected and approved by the department of health; and said department shall not inspect or approve any work done by any plumber who has not obtained such certificate.

1610. Penalty.] Any person violating, neglecting or refusing to comply with any of the provisions of this article, shall be fined not less than five dollars nor more than fifty dollars for each offense, and in addition, the certificate issued as herein provided, may be revoked by the mayor, on recommendation of the commissioner of health.

1611. Plumbers' bond.] No licensed plumber shall be permitted to make any alteration or repair to, or do any work in or about any pipe or pipes connected with any part of the city water works system, or with any pipe or sewer connected with the city sewer system, unless such plumber shall have executed to the city a good and sufficient bond in the penal sum of ten thousand dollars with sureties to be approved by the commissioner of public works, conditioned for the faithful observance and performance of all the ordinances of the city then in force or which may thereafter be in force concerning or

regulating the water works system or the sewer system of the city, or concerning the making or maintaining of any connection or connections thereto or therewith; and conditioned further, to indemnify, save and keep harmless the city from any loss, cost, damage, expense or liability of any kind whatsoever which the said city may suffer or which may accrue against it, be charged to or recovered from said city from or by reason of any thing done by such licensed plumber or by any servant, agent or employe of his in and about the making of any alterations or repairs to, or any work done in connection with any service pipe or pipes, water main or connection with the water works system of the city, or any drain or pipe or connection with the sewer system of the city, or which may arise from or by reason of any negligence on the part of such licensed plumber in not maintaining barriers and warning signals around any excavation or opening which has been made by him in any street, alley or public way, in pursuance of the work of repairing, altering or locating any service pipe or pipes or connection to or with the water works system of the city, or sewer system of the city; and conditioned further, to restore the surface of any street, sidewalk or roadway wherever the same shall have been disturbed by him in and about the doing of any work; and conditioned further to do such work of restoration to the entire satisfaction and approval of the commissioner of public works.

No permit shall be issued to any plumber to do any work necessitating the disturbance of any street, alley or public way, or alteration, repairing or location of any service pipe or pipes connected with the water works system of the city, or any drain or pipe connected with the sewer system of the city unless such bond be in full force and effect and on file in the office of the commissioner of public works.

ARTICLE II.

PLUMBING.

1612. Permit for use of water.] All applications for permits for the introduction or use of water supplied by the city shall be made in writing upon printed forms furnished by the department of public works, the blanks to be specifically and properly filled in and signed by the owner or duly authorized agent of the owner, and no work whatever shall be done in the street, or outside a building, by any plumber or other person for the purpose of making any connection to or with any city water main or pipe until after the issuance of such permit. This restriction shall not prevent any person from rendering assistance in case of accident to water pipes occur-

ring at night, or at any time requiring immediate action. In case of any such accident prompt report thereof shall be made at the department of public works by the person rendering such assistance.

1613. Tapping street main.] No person except the tappers employed by the department of public works shall be permitted under any circumstances to tap any street main, or insert stop-cocks or ferrules therein; all service cocks or ferrules must be inserted at or near the top of the street main, and not in any case nearer than six inches from the bell of the pipe; the size of the cock to be inserted shall be that specified in the permit.

1614. Lead pipe—weight.] No lead pipe shall be used in any work done under the authority of a license or permit issued by the city, except such as is known to the trade as “strong,” and must weigh as follows:

Half-inch internal diameter.....	13/4	pounds	per	lineal	foot.
Five-eighths in. internal diameter..	2 1/2	“	“	“	“
Three-fourths in. “ “ ..	3	“	“	“	“
One inch “ “ ..	4	“	“	“	“
One and one-fourth in. internal diam.	4 3/4	“	“	“	“
One and one-half in. “ “	6	“	“	“	“
One and three-fourths in. “ “	6 1/2	“	“	“	“
Two inches “ “	8	“	“	“	“

No pipe shall be used for the purpose of street service of a different material or size than herein specified except by special permit.

1615. Service pipe—joints.] All service pipes leading from street mains to the building line shall as far as practicable be laid in the ground to a depth of not less than five feet, and such pipe shall be laid in such manner and be of such surplus length as to prevent breakage or rupture by settlement, and all joints in such pipes shall be of the kind termed “plumber or wiped joints.” The connections of pipe by the so-called “cup-joint” is prohibited.

1616. Stop and waste cocks.] Every service pipe shall be provided with a stop and waste cock for each consumer, easily accessible, placed beyond damage by frost and so situated that the water can be conveniently shut off and drained from the pipes.

1617. Stop-cock—location and cover.] Such stop-cocks unless otherwise specially permitted shall be connected to service pipes within the sidewalk at or near the curb line of the same, and be inclosed in and protected by a cast iron box with a cover having the letter “W” of suitable size cast thereon; such iron box shall be of form and dimensions satisfactory to the commissioner of public works and shall extend from service pipe to surface of sidewalk, and be of proper size to admit a stop key for operating the stop-cock.

1618. Single tap for several buildings—cocks.] Whenever two or more distinct buildings or premises are to be supplied by means of

branch or sub-service pipes supplied by a single tap in the street main, each branch shall be independently arranged with stop-cock and box on the curb line in the manner above described. All cocks used at the sidewalks by plumbers shall be of the kind known as "round water way."

1619. **Opening and repair of streets—permit.]** Before filling the trench the service cock in the street main shall be covered with a suitable cast iron box furnished by the city, the earth shall be well rammed under the main, to a level with the top thereof, from thence the trench shall be filled in layers of not more than twelve inches in depth, and each layer thoroughly rammed or puddled to prevent settlement. This work together with the replacing of sidewalks, ballast and paving shall be done in all cases by the city. A sufficient amount shall be deposited with the city before issuing the permit for opening the street to cover this expense. In all cases where the street to be opened has been recently paved with blocks, sufficient of the paving shall be removed so that the foundation boards or planks (if any), can be taken up without cutting. No permit shall be granted for the opening of any paved street for the tapping of mains or laying of service pipes, when the ground is frozen to a depth of twelve inches or more, except when in the opinion of the commissioner of public works there is a sufficient emergency to justify it.

1620. **Steam boilers—supply tank.]** Plumbers are prohibited from connecting pipes whereby steam boilers may be supplied with water direct with city pressure. All such boilers shall be provided with a tank or other receptacle of sufficient capacity to hold at least six hours' supply, in case of a pipe district being shut off to repair mains or make connections or extensions. In such cases the city will not be responsible for a lack of water for steam boilers or for any other purpose.

1621. **New plumbing—repairs—exposed pipes and traps—tests.]** In all buildings hereafter erected in the city, both public and private, and in all buildings already built or erected wherein any plumbing is installed or wherein any sewer connected pipe shall be repaired or changed on the sewer side of the trap, the drain, soil, rainwater, waste pipes, or any other pipe or pipes connected directly or indirectly to any drain, soil, or waste pipe, and all traps, shall be placed within buildings and exposed to view for ready inspection and test, and shall remain so exposed until approved by the commissioner of health. In no case shall a trap be inaccessible at any time.

1622. **Metal connections—to be tested and approved.]** All soil or waste pipes shall be connected to the tile sewer, if a tile sewer is laid within the building, and if the connection is made above the ground or floor, by a suitable metal connection, which shall make an air and water-tight joint, without the use of cement, mortar, putty, or other

like material, and which can and shall be tested with water when in place. Such metal connections shall be in view at the time of final inspection.

The entire fitting or piece which is used to connect the iron soil or waste pipe to the tile sewer shall be regarded as the metal connection. Metal connections which can be removed from the sewer and soil or waste pipes, after once in place without removing a portion of the iron soil or waste pipe, are prohibited. No such metal connection shall be used which has not been submitted to and tested and approved by the chief sanitary inspector and the commissioner of health. No tile sewer shall be used above the ground or cement floor or where a cement joint is exposed to the air. One of each such approved types of metal connections shall be kept in the sanitary department.

1623. Connections outside buildings and under floors.] Outside of the building and under ground the connection between the soil or waste pipe and the vitrified tile sewer shall be thoroughly made with live portland cement mortar, made with one part cement and two parts clean, sharp sand.

An arched or other proper opening shall be provided in the wall for the house drain to prevent damage by settlement. The opening around the house drain may be filled with pure refined asphaltum.

1624. Drains connected with sewers—adequate size.] It shall be the duty of every person or corporation connecting or causing to be connected any drain, soil pipe, or passage with any sewer from any building, structure, or premises to cause such drain, soil pipe, passage, and connection to be at all times adequate for its purpose and of such size and dimensions as to convey and allow freely to pass, whatever may properly enter the same.

All connections between metal pipes and between metal pipe and tile sewers shall be made by a plumber and in such manner as the commissioner of health shall direct.

1625. Separate drainage for every building—exception.] Every building shall be separately and independently connected with a public or private sewer, where there is any such sewer in the street adjoining such building.

The entire plumbing and drainage system of every building shall be entirely separate and independent from that of any other building, except where there are two buildings on one lot, one in the rear of the other. If there is no sewer in the alley to which the rear building can connect the sewer of the first building may be extended to serve such rear building.

1626. Kitchen slops, etc.—water supply. All connections with sewers or drains used for the purpose of carrying off animal refuse from water-closets or otherwise, and slop of kitchens, shall have

fixtures for a sufficiency of water to be so applied as to properly carry off such matters.

1627. **Size of soil pipe—increaser.]** Every water closet located within any building shall waste into a pipe not less than four inches in diameter. Such pipe shall be increased below the roof line as hereinafter provided and shall be carried through and above the roof.

1628. **Definition of terms.]** In this article the term “main soil pipe” is applied to any pipe receiving the discharge of one or more water closets, with or without other fixtures, and extending through the roof.

The term “branch soil pipe” is applied to any pipe receiving the discharge from one or more water closets and with or without other fixtures and leading towards and connecting with the main soil pipe, but not necessarily extending through the roof.

The term “waste pipe” is applied to any pipe receiving the discharge from any fixture or fixtures other than water closets.

The term “house drain” is applied to the pipe within any building which receives the total discharge from any fixture or sets of fixtures, and may or may not include rain water, and which conducts or carries the same to the house sewer. The house drain, when rain water is allowed to discharge into it, shall be not less than six inches internal diameter.

The term “house sewer” is applied to the tile sewer, which shall be not less than six inches internal diameter, and which begins outside of the wall of a building and connects the house drain with the public sewer in the street.

The term “main vent” is applied to the vertical line of air pipe running through two or more floors and to which the vent or revent pipes from the various floors are connected.

The term “vent pipe” is applied to any pipe provided to ventilate a system of piping, and to which the revents are connected.

The term “revent pipe” is applied to any pipe used to prevent trap siphonage and back pressure.

The term “soil” or “waste vent” is applied to that part of the main soil or waste pipe which is above the highest installed fixture waste connection and extends through the roof.

When sizes of pipes are specified the internal diameters of the pipes are meant.

1629. **Iron pipes—quality—weight.]** All soil, waste, and vent pipes, except as hereinafter specified for lead branches and brass pipes, shall be either extra heavy cast iron pipe coated with tar or asphaltum or standard galvanized wrought iron pipe; provided, that wrought iron pipe coated with tar or asphaltum may be used for soil and waste pipes, but not for soil or waste vent or for vent or re-

vent pipes. All pipes shall be sound and free from all holes, cracks, or defects of any kind.

The following weights per lineal foot will be accepted as complying with this chapter as to weight of extra heavy cast iron pipe:

Diameter

2 inches	.....	51½	pounds	per	lineal	foot.
3 "	.....	91½	"	"	"	"
4 "	.....	13	"	"	"	"
5 "	.....	17	"	"	"	"
6 "	.....	20	"	"	"	"
7 "	.....	27	"	"	"	"
8 "	.....	33½	"	"	"	"
10 "	.....	45	"	"	"	"
12 "	.....	54	"	"	"	"

Extra heavy cast iron pipe shall have the maker's name and the weight per foot clearly cast upon each section thereof.

The following weights per lineal foot are required for standard wrought iron pipe, galvanized, or tar coated pipe:

Diameter

1½ inches	....	2.68	pounds	per	lineal	foot.
2 "	....	3.61	"	"	"	"
2½ "	....	5.74	"	"	"	"
3 "	....	7.54	"	"	"	"
3½ "	....	9.00	"	"	"	"
4 "	....	10.66	"	"	"	"
4½ "	....	12.49	"	"	"	"
5 "	....	14.50	"	"	"	"
6 "	....	18.76	"	"	"	"
7 "	....	23.27	"	"	"	"
8 "	....	28.18	"	"	"	"
9 "	....	33.70	"	"	"	"
10 "	....	40.00	"	"	"	"

1630. Fittings—quality—cleanout fittings.] All fittings used for soil or waste pipe, except as hereinafter specified, shall be either extra heavy tar or asphaltum coated fittings or extra heavy galvanized, cast, or malleable iron, recessed and threaded drainage fittings. The burr formed by cutting the wrought iron pipe shall be carefully reamed out. Proper sized cleanout fittings shall be installed at each ninety degree intersection of soil or waste pipe.

1631. Cleanout—no pipe to be tapped.] On soil or waste pipes four inches or more in diameter heavy brass cleanouts, not less than four inches in diameter, shall be used.

No iron drain, soil, waste, or vent pipe shall be drilled and tapped.

1632. Pipe joints, filling of.] All joints on cast iron soil, waste, or drain pipes, and rain water leaders shall be so filled with picked oakum and molten lead and hand calked as to make them air and water tight. The quantity of lead used shall be twelve ounces of fine soft lead for each inch in the diameter of the pipe.

1633. Floor rests on vertical lines.] Vertical lines of soil, waste, or other pipes, or rain water pipes when within buildings, shall be provided with floor rests at intervals of not more than twenty feet. Such rests shall be placed immediately beneath a coupling, hub, or fitting.

1634. Pipe supports—pipe hooks prohibited.] The foot of every vertical soil, rain, or waste pipe shall be adequately supported by brick, stone, or concrete piers properly constructed by the use of cement mortar or cement concrete or otherwise equally well supported. Pipes under the basement floor or in the ground shall be properly laid, graded, and supported. Pipes above the floor shall either be adequately supported or suspended.

The use of pipe hooks for supporting pipes is prohibited. At the foot of each soil or waste pipe shall be placed a cleanout fitting, which shall be accessible at all times.

1635. Prohibited fittings.] No double hub, double "Y" or double "TY" branches shall be used on horizontal runs. On vertical lines double hubs and straight crosses shall not be used. The use of bands, saddles, and sleeves is prohibited.

1636. No calked pipe in vibrating buildings.] Pipes with calked joints shall not be installed in buildings subject to vibrations from operating machinery or subject to other causes likely to loosen such calked joints.

1637. Lead pipe—quality—not within partitions.] Lead pipe of a quality equal to "extra light" shall be used for water closet bends and as branches for vent, revent, and waste pipe connections.

Lead pipe used for vent or revent connections shall not extend into or be used within partitions.

1638. Lead pipe connections—wiped joints—brass pipes.] All connections between lead and metal pipes shall be made by heavy brass solder nipples, or heavy brass, or combination ferrules which have been approved by the department of health. All solder connections shall be regulation wiped joints. If brass pipe is used it shall be drawn tubing of No. 18, B. and S. gauge.

1639. Sweep Fittings.] Straight tees shall not be used. Long radius or sweep fittings shall be used where possible.

1640. Chimney ventilation of soil or waste pipes prohibited.] No brick, sheet metal, earthenware, or chimney flue shall be used for a sewer ventilator or to ventilate any trap, soil, waste, or other sewer connected pipe or opening.

1641. Iron pipe—where used.] Every soil, revent, vent, and waste pipe shall be of iron, except as is specified herein for lead or brass pipe.

1642. Vertical pipes through roof—increased how.] The vertical soil, waste, or vent pipes (where the vent or continuous waste pipe is not reconnected to a soil, waste, or vent pipe below the roof) shall extend through and above the roof at least eight inches and have a diameter of at least one inch greater than that of the pipe proper. But in no case shall it be less than four inches in diameter through and above the roof.

The increasers shall extend at least one foot below the roof. No cap or cowl shall be affixed to the top of any such pipe or pipes.

1643. Pipes above main building—nuisance.] Soil, waste, and vent pipes shall be carried above the roof of the main building when otherwise they would open within fifteen feet of the windows or doors of such or adjoining buildings and shall be not less than six feet from any ventilator or chimney opening of such or adjoining building or buildings; nor shall they be located so as to be a nuisance to the occupants of any building.

1644. Soil and waste pipes extended—when.] Branches of soil or waste pipes if twenty feet or more in length shall be extended full size and increased and extended through and above the roof. Branches of soil or waste pipes not more than fifteen feet in length shall be either carried full sized and increased and carried through and above the roof or returned (full sized for waste pipes and not less than three inches in diameter for soil pipes) to main soil vent or vent pipe of not less size than the returned pipe.

1645. Ejectors—ventilation—size of soil and wastes.] The soil or waste pipe leading to an ejector or other appliance for raising sewage or other waste matter to the street sewer, shall, where a water closet or closets are installed, be ventilated by a vent pipe not less than four inches in diameter. Where fixtures other than water closets are installed the waste pipe shall be ventilated by a vent pipe of the same diameter as the waste pipe. Soil vents, vents, and revents for ejectors shall be installed according to the provisions of this chapter governing soil, waste, vent, and revent pipes.

1646. Prohibited pipes—pitch or grade.] Horizontal soil and waste pipes are prohibited.

In all cases the pitch shall be one fourth inch to the foot, making the grade in the direction of the outflow.

1647. Drainage fittings—horizontal vents—trapped vents.] Where rows of fixtures are placed in line, where galvanized wrought iron pipe is used for vents and revents, galvanized iron, malleable, or cast iron, drainage fittings shall be used if possible.

Horizontal vent pipes unless practical shall not be used. No line

of soil, waste, or vent pipe shall be run with unnecessary bends or offsets.

Trapped or sagged, or drops in, vents or revents are prohibited. No vent pipe from the house side of any trap shall connect to any sewer, vent pipe, soil, or waste pipe.

1648. Continuous vents.] Trap revents shall be continuous where possible. Where the vent or revent pipes are continuous and traps are ventilated through the waste fitting, the center of the outlet of such fitting shall not be set below the water seal of the trap; and the trap shall not be more than three feet from the waste fitting.

No crown venting shall be permitted.

1649. Size of soil and waste pipes.] The least diameter of soil pipe permitted is four inches. A vertical waste pipe into which a kitchen sink or sinks discharge shall be two inches in diameter and at least three inches in diameter if receiving the waste of five or more floors and shall have not less than one and one half inch branches.

1650. Trap prohibited—where.] There shall be no traps at the foot of soil or waste pipes, nor shall there be any trap upon the house drain or house sewer.

This section shall not prohibit the use of traps at the foot of rain water leaders or upon drains or sewers used exclusively for conducting rain water to a public sewer.

1651. Trap revents—concealed partitions.] Every water closet, urinal, sink, basin, bath, and every laundry tub or set of laundry tubs, or any other plumbing fixture shall be effectively and separately trapped and revented, except as hereinafter provided for anti-siphon traps.

All traps shall be protected from siphonage by special vent or revent pipes, except where anti-siphon traps are permitted. Such revented trap shall not depend upon any concealed partition for its water seal.

1652. Connected wastes.] A connected waste pipe receiving the discharge of not more than two basins, set in line, may waste into a single trap, which shall not be more than two feet from the waste outlet of one of the fixtures.

1653. Floor washes—bell traps prohibited—back water valve.] When floor washes are connected it shall be by means of a deep seal trap. Bell traps and traps having covers, over hand holes on the sewer side of the trap, held in place by lugs or bolts, are prohibited. Covered floor washes are prohibited. Where a floor wash is placed in the basement it shall be protected from back sewage by means of some suitable and approved back water valve.

1654. Bath tub drum trap—revent.] Each bath tub shall be provided with a drum trap. Traps on bath tubs shall be placed in such a manner that the cleanout will be in plain view and above the floor.

The drum trap shall be revented through either a "TY," a "Y," or a drainage fitting.

1655. Traps—placing of—water seal.] Traps shall be placed as near to the fixtures as possible, and in no case shall a trap be more than two feet from the waste outlet of its fixture.

All traps shall have at least a one and one half inch water seal and they shall be set true with respect to their water level.

1656. Waste to closet bend, etc., prohibited.] In no case shall a waste pipe from any fixture be connected with any water closet trap or bend, vent or revent connection for same.

1657. Water closet revent—size.] Water closets when placed within buildings shall have two inch revents for each water closet trap, except as hereinafter provided.

1658. Size of vents depends on stories.] The main vent pipe for traps of water closets or for traps of other fixtures, in buildings four stories or under, shall be at least two inches in diameter and have two inch revents, except that revents may be the same size as waste traps. In buildings more than four stories high and not more than six stories high the main vent pipe shall be at least two and one half inches in diameter. In buildings more than six stories high the main vent pipe shall be at least three inches in diameter.

1659. Vents—size of for twelve fixtures.] Where more than twelve closets are installed on any floor the vent pipe for the same shall be at least three inches in diameter with two inch revents for traps.

For purposes of reventing, any four fixtures other than water closets (where the same are placed on one floor) shall be taken as equal to one water closet. This is to apply where water closets are revented through the same vent pipe.

1660. Vents in residences.] Vent pipes for water closets in residences shall be two inches in diameter with same size branches, and for other fixtures not less than one and one half inches in diameter with branches the same size as waste and trap; except that the vent pipe for a kitchen sink shall be two inches in diameter.

1661. Size of waste pipes.] Where fixtures other than water closets are installed in a building more than four stories and basement or cellar high, having no soil pipe from ground in building to and through roof, and where the total number of fixtures wasting into one pipe exceeds six, the same shall waste into at least a two and one half inch pipe, which shall be carried through the roof; except that where a battery of urinals and no water closets are installed in any building (where a three inch waste pipe is required) the same shall be carried at least three inches in diameter from the ground in the building up and through the roof.

1662. In buildings under four stories.] In buildings of four stor-

ies and under, where no water closet is installed and where no sewer connected soil pipe is carried from ground in building to roof, the fixtures if six or more in number shall waste into a pipe at least two and one half inches in diameter, which shall be carried through the roof.

Where a smaller number of fixtures is installed the main waste pipe shall be two inches in diameter and carried through the roof, except that where a battery of urinals having a three inch waste pipe is installed the waste pipe shall be carried at least three inches in diameter from the ground in the building up and through the roof.

1663. Vents reconnected.] All vents shall be either run separately through the roof or be reconnected to an increaser twelve inches below the roof or may be reconnected to the soil vent or main vent pipe, not less than three feet above the highest floor on which fixtures are placed; Provided, that no fixture or fixtures shall be placed on any floor or floors above and connected to the soil, waste, vent or revent pipes from the fixtures on floors below; nor shall any fitting or fittings for future connections be placed in any soil or waste pipe above the point of revent connection. Where fixtures are afterwards installed on other floors the vent and revent pipes of the fixtures already installed shall be rearranged to conform to the provisions of this chapter. Reconections will not be permitted where said vent pipes run through more than five floors.

1664. Length of horizontal vent.] The vent pipe from any fixture or fixtures reconnected as hereinbefore provided shall not span a horizontal distance to exceed twelve feet in length.

1665. Vent pipe increased.] Where a vent pipe is carried independently through the roof it shall be increased as provided for in preceding sections.

1666. Prohibited use for revent.] No trap, revent, or vent shall be used as a waste or soil pipe.

1667. Revents for adjoining fixtures.] Where bath rooms are located on opposite sides of a wall and directly opposite each other and on the same floor in any building and have a common soil or waste pipe, in the same separating wall, the revents from fixtures in either or both of such bath rooms may connect into the same vent pipe.

Where two water closets or other plumbing fixtures waste into a double "Y" or double "TY" fitting a single two inch revent connected at or near the junction of the two waste lines forming a part of the fitting will be permitted.

1668. Safe wastes.] All lead or other safes where necessary under fixtures shall be drained by a special pipe, the same to discharge into an open water supplied sink or into a deep seal trap, and in no case shall the safe be connected with any waste, soil, or drain

pipe or sewer. The ends of safe waste pipes shall be covered by flap valves.

1669. Overflow pipes.] Overflow pipes from fixtures shall be in each case connected on the inlet side of the trap.

1670. Refrigerator wastes—sizes—traps.] The waste pipe from a refrigerator or ice box shall not be directly connected with any soil, rain, or waste pipe or with the drain or sewer, or discharge upon the ground. It shall discharge into an open water supplied sink or over a deep sealed trap and shall be as short as possible and disconnected from the refrigerator or ice box by at least four inches; and where refrigerators or ice boxes are placed in buildings and upon two or more floors the waste and vent pipe thereof shall be continuous and shall run through the roof, and in no case shall it open within six feet of an open soil or vent pipe.

The size of a waste pipe for refrigerators for two floors or less shall be at least one and one half inches and two inches for three floors and over and under five floors, and two and one half inches for five floors and over. Each refrigerator or ice box shall be provided with a suitable trap with an accessible trap screw or cleanout. Such trap shall be placed in the one and one half inch waste pipe and shall be near the refrigerator or ice box. Such traps need not be separately revented.

1671. House boilers.] The sediment pipe from house boilers shall not be connected into the sewer side of any trap nor directly connected into any soil, waste pipe, or drain.

1672. Flush tanks—purity of water.] All water closets and urinals within any building shall be supplied from special tanks or approved automatically flushing valves having flush pipes at least one and one quarter inches in diameter. The water from such tanks or cisterns shall not be used for any other purpose. The purity of such water and of water used in all other plumbing fixtures shall be equal to the purity of the water supplied through the Chicago water works system.

1673. Automatic flush tanks.] Flush tanks for urinals shall be arranged for intermittent and automatic discharges. All urinals shall be flushed at regular intervals not to exceed seven minutes each.

1674. Cisterns for water closets—house tanks.] Where cisterns are used for water closets they shall each have a siphon discharge. The valves of such cisterns shall be fitted and adjusted so as to prevent a waste of water. When the city pressure is not sufficient to supply such cisterns or plumbing fixtures with water adequate pumps or house tanks shall be provided.

1675. Water closets.] All water closets shall have flushing rim bowls.

1676. Water closet flushing.] Water closets and urinals shall not

be supplied from any water supply pipes direct. In a cellar or unfinished basement of a building already constructed and where there is danger from frost sanitary long hopper closets may be installed if they are provided with individual frost proof flush tanks of approved types.

All closets shall be fitted with either siphon discharge flush or pressure tanks or approved automatically flushing valves not directly connected to the city water supply pipes.

All individual closets at each flush shall receive not less than four gallons of water into the closet bowl at each discharge, which shall be discharged in such time and with such force as shall thoroughly cleanse the closet bowl at each flush.

1677. Long hopper closets—where not to be installed.] Long hopper closets shall not be installed in the cellar or basement or in any part of any building hereafter constructed.

1678. Outside water closets—where.] A water closet shall not be installed on a porch or other like place. Outside water closets may be installed for buildings heretofore erected only.

1679. Proximity to buildings.] Water closets when placed in the yard of any building heretofore erected shall be separately trapped and placed not less than eight feet from any dwelling or other place of abode and so arranged as to be conveniently and adequately flushed, and their water supply pipes and traps shall be protected from freezing. The compartments for such water closets shall be adequately lighted and ventilated.

1680. Water closets under sidewalks.] Where water closets or other plumbing fixtures are placed under a sidewalk, street, alley, or other like place, adjoining and opening into the basement of any building, each and every fixture so placed shall be ventilated in the same manner as provided for other plumbing fixtures in this chapter, and the water closet compartments shall be adequately lighted and ventilated. In all other places where plumbing fixtures are placed in compartments under sidewalks, streets, alleys, or other like places, and where the compartments are separated by an open space between the adjoining building and the sidewalk, the vent pipes may be omitted; Provided, that a soil or waste pipe not less than four inches in diameter shall be connected to the main sewer and extended through the roof of the adjoining building.

1681. Separate water closets—number of—where placed.] In all places of employment where men and women are employed, separate and sufficient water closets shall be provided for males and females. Water closets for men shall be plainly marked "Men's Toilet" and water closets for women shall be plainly marked "Women's Toilet."

In all places of employment one water closet shall be provided for every twenty-five males or less number, and one water closet shall be

provided for every twenty females or less number. Such water closet facilities shall be furnished upon at least every second floor. Where there are employes in any basement such basement shall be considered as one floor.

1682. Water closets in lodging houses.] In lodging houses and hotels hereafter erected or altered there shall be provided one water closet for every twenty-five males or less number and one water closet for every twenty females or less number. The number of water closets required shall be determined from the number of lodging quarters provided. There shall be at least one closet on each floor. The general water closet accommodations of a lodging house shall not be placed in the basement.

1683. Separate closets for business and residences.] In all buildings used jointly for residence and business purposes, separate and sufficient water closets shall be provided for the use of families and for the use of employes and patrons of the place.

1684. Toilet paper.] No paper other than what is commonly known as toilet paper shall be placed in any water closet or allowed to enter any soil pipe.

1685. House tanks, lining—overflow.] Tanks in which water to be used for drinking or other domestic purposes is stored shall not be lined with zinc or lead.

The overflow pipes from such tanks shall discharge upon the roof or be trapped and discharged into an open sink. Such overflow pipes shall not be connected into any soil waste pipe or other sewer connected pipe; nor shall the drain or sediment pipe be connected into any soil, waste pipe, or other pipe directly connected with a sewer.

1686. Rain water leaders, trapped when.] Rain water pipes or leaders shall not be used as soil, waste, or vent pipes; nor shall any soil, waste, or vent pipe be used for a rain water pipe or leader. Where a rain water leader opens near any window, door, or vent shaft, or is so located as to render it likely to become a nuisance, if not trapped it shall be properly trapped far enough below the surface to prevent its becoming a nuisance or freezing.

Inside rain water leaders shall be made of extra heavy cast iron or tar or asphaltum coated wrought iron pipe or galvanized wrought iron pipe, with roof connections, made gas and water tight by means of heavy lead or copper drawn tubing, wiped or soldered to a brass ferrule, calked or screwed into the pipe. Outside rain water leaders may be of sheet metal but they shall connect with the house drain by means of a five foot length of cast iron pipe extending vertically at least four feet above the grade level.

1687. Steam pipe—blowoff basins—vent, etc.] No steam, exhaust, blowoff, drip, or return pipe from any steam trap shall connect with the sewer or with any house drain, soil, waste pipe, or rain water

pipe. The water or steam of condensation from such pipes before it shall enter any sewer or drain shall be discharged into a suitable cast iron catchbasin or condenser, from which a special vent pipe not less than two inches in diameter shall extend through the roof.

1688. Blowoff pipes—kind, etc.] Blowoff pipes from boiler or heating plants shall be either of extra heavy cast iron pipe or galvanized wrought iron pipe. No such blowoff or hot water pipe shall discharge directly or indirectly into any vitrified earthenware tile sewer within any building.

1689. Temperature of water into sewer.] No water of a higher temperature than one hundred and twenty degrees Fahrenheit shall be permitted to enter any house sewer direct.

1690. Area drains—traps—backwater valves.] When the area drains are connected to the house sewer or drain they shall be effectively trapped. Such traps shall be protected from frost.

1691. Cellar drainer—ground water.] Cellars and basements shall be kept free from ground or surface water, and where the same are too low to be drained into the sewer the water therefrom shall be lifted by a cellar drainer or other device, approved by the chief sanitary inspector, and discharged into the sewer.

1692. Floor washes in basements—indicated protection.] Floor washes for basements shall be provided with a deep seal trap, having a heavy strainer, and a backwater gate valve, or stop, accessible for cleaning.

No backwater valve shall be used which has not been approved by the chief sanitary inspector.

All building plans, where basement floor washes are connected, shall indicate where and what backwater valve or device is to be used.

1693. Sumps—tight cover.] Sumps or rodding basins for subsoil drains shall be provided with tight cast iron covers.

1694. Prohibited sinks and tubs.] The installation of stationary wooden sinks and wooden laundry tubs is prohibited inside of any building used for human habitation. Such sinks and tubs shall be of non-absorbent material.

1695. Catchbasins prohibited—when.] No catchbasin or gravel basin shall be allowed within any building, except as provided for in the following sections:

1696. Kitchen wastes to catchbasin.] Kitchen or other greasy wastes shall be intercepted by a catchbasin or grease trap and thence conducted to the house sewer.

The vitrified tile sewer through which kitchen wastes are conducted shall be at least six inches in internal diameter.

1697. Catchbasins, construction of.] Catchbasins for receiving such wastes shall be constructed either of brick, concrete, or cast iron.

If of brick or concrete they shall be at least thirty inches internal diameter at the base and may taper to not less than twenty-two inches internal diameter at the top and be finished with a stone or iron cover at grade level.

The walls of such catchbasins shall be (if of brick) eight inches thick and laid in portland cement mortar and plastered outside and inside with a half inch coat of portland cement mortar in proportion of one part of portland cement and two parts of clean, sharp sand.

The bottom shall be at least eight inches thick and of either brick laid in cement mortar or of portland cement concrete. The brick used shall be hard burned sewer brick.

Where portland cement concrete is used the walls shall be at least six inches thick and the concrete shall be made of one part of live portland cement three parts of clean, sharp sand and five parts of crushed stone free from dust and of sizes between one fourth inch and one and one half inches in largest diameter; and in addition the catchbasins shall be plastered inside and out as specified above for brick construction. Catchbasins shall be made water tight. No retempered cement shall be used.

The bottom of catchbasins shall be at least two feet below the invert of the outlet to the sewer.

The outlet shall be trapped to a depth of six inches below the invert of the outlet to the sewer, to prevent the escape of grease, by a hood or trap of brick and cement mortar, a hood of concrete or cast iron.

The invert of the inlet to the catchbasin, for kitchen wastes, shall be not less than two and one half feet above the finished bottom of the catchbasin.

1698. Catchbasin dispensed with—grease trap.] Where the building covers the entire lot the catchbasin for kitchen wastes may be dispensed with, provided that a suitable sized grease trap of approved construction is installed and provided with a water jacket through which shall circulate the water that is drawn for the general kitchen use. Such grease traps shall at all times be accessible for cleaning.

1699. Defective catchbasins—rain conductor connection.] Rain water leaders may connect to catchbasins. Such leaders shall connect to a catchbasin when they conduct water from a gravel roof.

Defective and leaching catchbasins shall be rebuilt according to the above specifications.

1700. Number of urinals in factories.] In all places of employment one urinal shall be provided for every seventy-five males or less number.

1701. Construction—prohibited use.] The sides, back, and base of every urinal stall placed within any building shall be of non-absorbent material. Urinal stalls having troughs set in the floors are

prohibited. The top of the urinal base shall be set one and one half inches above the finished floor level. Urinal troughs and sectional urinals, unless lipped and provided with suitable automatic flush tanks or approved intermittent and automatic flushing valves are prohibited. No sectional urinals shall be placed within a building or compartment which is subject to vibrations.

1702. Urinal flush—prohibited materials.] Every urinal stall shall have an individual lipped sanitary urinal bowl.

The use of cast iron, galvanized iron, sheet metal or steel urinal bowls and troughs is prohibited. Each urinal bowl shall be separately and independently trapped and shall have a waste pipe of at least two inches in diameter.

1703. Automatic flushing of urinals.] Each and every urinal trough and urinal bowl shall be intermittently and automatically flushed with at least a one gallon water flush for each urinal bowl or two foot length of urinal trough and at intervals not to exceed seven minutes each during its period of use.

The flushing of all such urinal fixtures shall be by means of either approved intermittently and automatically operated flush tanks or by intermittently and automatically operated flushing valves protected against a vacuum by a ground seat check valve.

1704. Urinal wastes—prohibited screens.] The waste pipe of a "battery" of not exceeding four urinals shall not be less than two inches in diameter. For batteries exceeding this number the waste pipe shall be at least three inches in diameter.

No wire or metal screen shall be placed in any urinal bowl, unless every part of such screen is thorough washed at each water flush.

1705. Revent omitted, when.] Where a single water closet or other plumbing fixture is located in a building or on the top floor of any building and there is an adequate soil or waste pipe of undiminished size from ground (in building) to roof, the revent pipe may be dispensed with; Provided, that a non-siphoning trap tested and approved by the chief sanitary inspector, or a closet of approved construction, is used for such work; and provided, further, that the trap of such fixture is located not more than five feet from such soil or waste pipe.

1706. Revent omitted, when.] Where a toilet or bath room having not more than one closet and three other fixtures therein, is located on one floor only or the top floor of any building, and such closet is set not more than five feet from the vertical soil pipe, the revent for the closet may be omitted; Provided, that a closet of an approved construction is installed.

1707. Vent pipes reconnected—exception.] Vent pipes shall be reconnected to main soil and waste pipes or drain by a "Y" branch below the lowest fixture, and in such a manner as to prevent accumu-

lation of rust. This shall not apply where there is a battery of fixtures on one floor only and no other fixtures on floors above or below.

1708. Open plumbing.] All plumbing fixtures shall be installed as open plumbing.

1709. Prohibited closets—removal.] Pan, plunger, offset, wash-out-range closets and washout latrines shall not be allowed in any building; nor shall hopper closets be installed in any building hereafter erected. Such closets when found to be a nuisance shall be removed, or when the same are removed for repairs they shall not be again installed. In alteration work pan and plunger closets shall be removed.

Range closets of types approved by the commissioner of health and the chief sanitary inspector may be installed in factories and workshops only, and such closets shall be installed in separate compartments as hereinbefore provided for water closet compartments.

1710. Reventing washout closets.] Where individual washout closets are installed they shall be revented above the floor line. Rubber connections or connections of like material shall not be used on any sewer connected pipe.

1711. Prohibited fixtures not reinstalled.] No fixture shall be installed and no fixture shall be reconnected or reinstalled where it does not meet the requirements of this chapter.

1712. Earthenware trap connections — how made.] All earthenware traps shall have heavy brass floor plates, not less than one fourth of an inch in thickness, soldered to the lead bend, or, where brass or iron pipes are used, screwed to the same and bolted to the trap flange, and the joints between the flange and traps shall be made gas tight without the use of putty, plaster, cement, rubber or leather washers. The use of putty, plaster, cement, rubber or leather washers in the making of such connections is hereby prohibited.

1713. Slip joints—ground joints.] Slip joints shall not be permitted on the sewer side of any trap unless a metal connection is required between soil or waste pipes and tile sewers.

Unions on wrought iron pipe shall be made by means of metallic brass seated ground unions and made without gaskets or packing.

1714. Barn drainage—traps—catchbasins.] Floor washouts, urnal gutters, and wash racks in barns or stables shall be provided with deep seal traps, having heavy strainers. Such traps shall have a depth of seal of at least three inches and shall be located at the floor line. An adequate water supply shall be provided for flushing such gutters.

All liquid wastes from barns or stables shall be intercepted before entering the sewer by a catchbasin placed outside of the building, which shall be either the catchbasin which is constructed according to

the specifications for such catchbasins or a cast iron catchbasin provided with bolted air tight iron cover. Barn drains and wastes shall be ventilated by sufficient and proper vents through the roof.

1715. Special permits—when issued.] Special permits will be issued by the chief sanitary inspector only.

Where special permits are issued the location shall be inspected before the work is started and duplicate plans in ink, in the name of the owner, agent, or architect, shall be submitted and approved and placed on file. These plans shall show the proposed work, in plan and elevation. Such plans shall be drawn on paper or cloth and drawn to a quarter inch to the foot scale.

The installation of any sewer connected fixture or of any sewer connected pipe or pipes other than those hereinbefore mentioned, or under any other conditions than those hereinbefore set forth, shall be as directed by the chief sanitary inspector and the same shall be covered by special permits issued by him.

1716. Plumber's notification — inspection, when.] When the plumbing in any building is ready for inspection the plumber in charge of the work shall immediately notify the commissioner of health in writing of such fact at least twenty-four hours in advance of inspection. Inspections will not be made the same day that notifications are received.

1717. Inspection of repairs.] The following repairs and extensions to any part of the plumbing or drainage system within any building shall also be reported for inspection, viz.: where there is any change in any sewer connected pipe and where such change is on the sewer side of the trap.

1718. Inspections—tests.] The entire plumbing and drainage system when roughed in, in any building, shall be tested by the plumber in the presence of the plumbing inspector and as directed by him, under either a water pressure or air pressure.

The water pressure test shall be applied by closing the lower end of the main house drain and filling the pipes to the highest opening above the roof with water, except that a part of the system may be tested separately, provided that there shall be a head of water of at least ten feet above all parts of the work so tested. The air pressure test shall be applied with a force pump and mercury column equal to ten inches of mercury. The use of spring gauges is prohibited. Special provision shall be made to include all joints and connections to the finished line or face of floors or side walls, so that all vents and revents, including lead work, may be tested with the main stacks. All pipes shall remain uncovered in every part until they have successfully passed the test. After the completion of the work, and when fixtures are installed, either a smoke test under a pressure of one inch water column shall be made of the system, in-

cluding all vent and revent pipes, in the presence of the plumbing inspector and as directed by him, or a peppermint test made by using five fluid ounces of oil of peppermint for each line up to five stories and basement in height, and for each additional five stories or fraction thereof one additional ounce of peppermint shall be provided for each line.

All defective pipes and fittings or fixtures shall be removed and all defective work shall be made good and so as to conform to the provisions of this chapter.

1719. Water closet and urinal compartment—ventilation.] Water closets and urinals shall not be installed in an unventilated room or compartment. In every case the room or compartment shall be open to the outer air or be ventilated by means of an air duct or shaft or be mechanically ventilated.

In the case of an extension or alteration of any existing plumbing system, the same, if new stacks are run, shall be tested when roughed in and when completed as hereinbefore provided.

1720. Peppermint test for alterations.] In other alteration work a peppermint test and only this test shall be applied by using five fluid ounces of oil of peppermint for each line up to five stories and basement in height, and for each additional five stories or fraction thereof one additional ounce of peppermint shall be provided for each line.

1721. Old work remodeled.] In remodeling work the existing system of soil, waste, and ventilating pipes shall be changed to make them reasonably conform to the provisions of this chapter.

Where a urinal, bath, or water closet compartment is mechanically ventilated the air shall be changed at least four times per hour by exhausting the air from the compartment.

1722. Light and ventilation.] All urinals, bath, or water closet compartments hereafter constructed in any building shall be lighted and ventilated as hereinafter provided for. Every water closet or urinal compartment or bath room in every now existing building and every compartment in buildings hereafter erected, where the compartment is more than one story under ground, shall be separately ventilated by a window opening to the external air or by proper and adequate ventilating pipes, shafts, or ducts running through the roof, or to the external air, and providing for at least four changes of air for the entire compartment each hour. All such compartments shall be adequately lighted by either natural or artificial light.

1723. Toilet compartments—separate.] The urinal, bath, or water closet compartments shall be separate compartments and shall be entirely separated from any other room, workshop, office, or hall, by a tight partition extending from floor to ceiling, and every door

of every such compartment shall be provided with a door check to keep such door closed.

No window or other opening shall be made to open from any such compartment for the purpose of ventilation, into any adjoining room, office, workshop, factory, hallway, or compartment of any kind.

1724. Window area in toilet compartments.] In every building hereafter constructed every such compartment, where there is not more than one story under ground, shall have a window not less than one foot wide and of an area of at least four square feet for a floor area of forty-five square feet or less, opening directly into the outer air, or special light and air shaft, into which no other rooms or compartments, other than toilet compartments, are ventilated. For upwards of forty-five square feet of floor area there shall be a window area of at least one tenth of the floor area. The windows in all cases are to be arranged so as to admit their being opened at least one half their height. The urinal, bath, or water closet compartments on the top floor of any building may be lighted and ventilated by means of a skylight and ventilator. The area of the skylight shall conform to the above specified areas for windows.

1725. Keep clean.] All such fixtures in such compartments as are referred to in the previous section shall be kept in a thoroughly clean and sanitary condition.

1726. Ventilation into court.] Nothing herein contained shall be construed as preventing the ventilation of the above mentioned compartments into an outer, inner, or lot line court.

1727. Plans—plan and elevation, etc.] Building plans in duplicate shall be filed with the bureau of sanitary inspection before the original plans are approved. Such duplicates shall be on paper or cloth and drawn to a standard scale, showing how all rooms and compartments of the building are to be lighted and ventilated. They shall also show in plans and in at least one elevation all drains, soil, waste, vent, and revent pipes within the building and the location of all plumbing fixtures within the building, the location of the catch-basin (in case one is necessary) outside of the building, and its connection to the drainage and sewerage system.

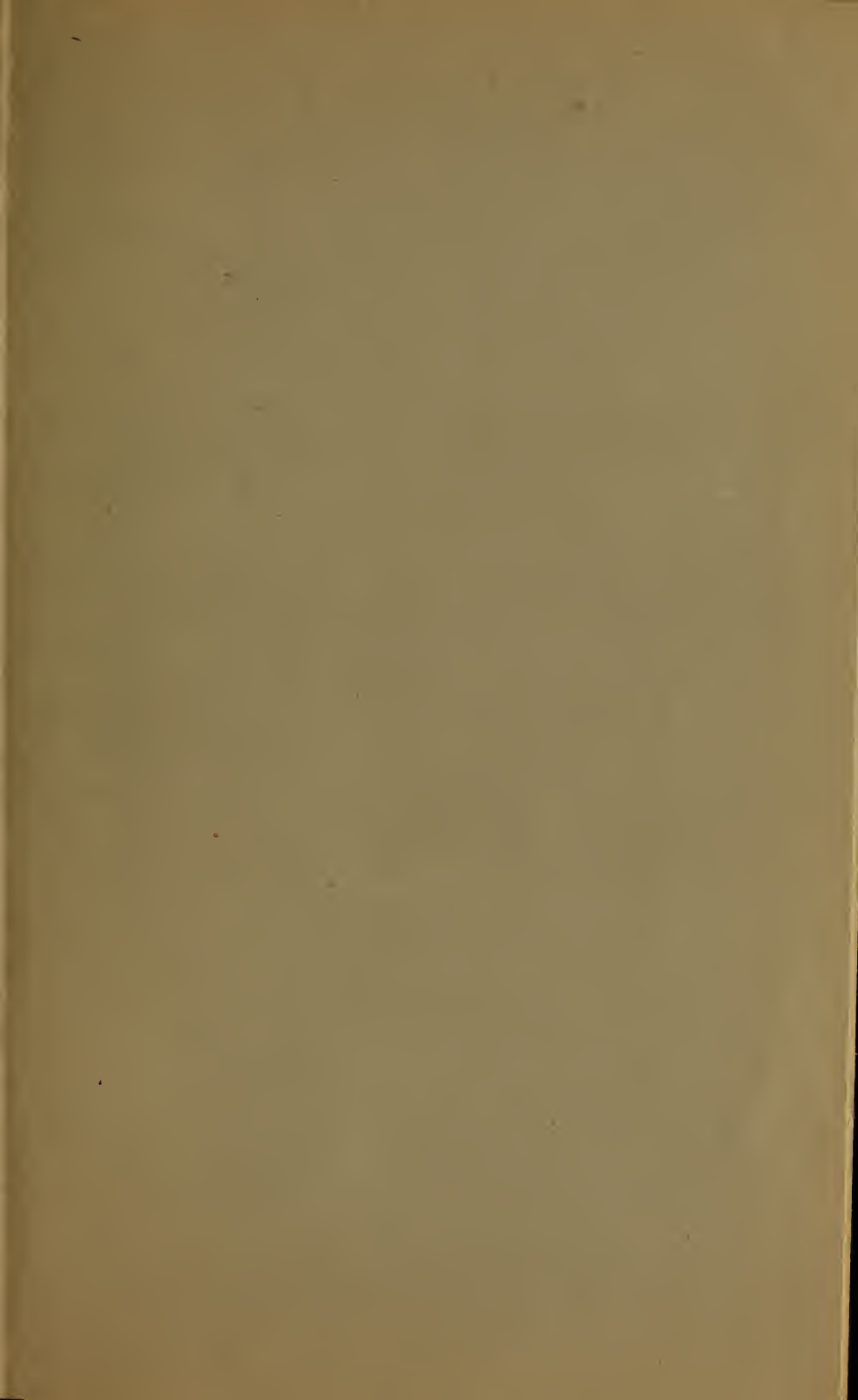
1728. Fee before plans are approved.] Before plans are approved the following fees for inspection shall be paid to the city collector:

When the building contains from one to six plumbing fixtures the sum of fifty cents shall be paid for each fixture, and for each and every additional fixture thereafter installed the sum of twenty-five cents shall be the fee for inspection.

1729. Certificate of inspection.] When the plumbing in a building is completed the plumber or his representative shall secure for the owner of such building from the commissioner of health a certificate of inspection, signed by the chief sanitary inspector and ap-

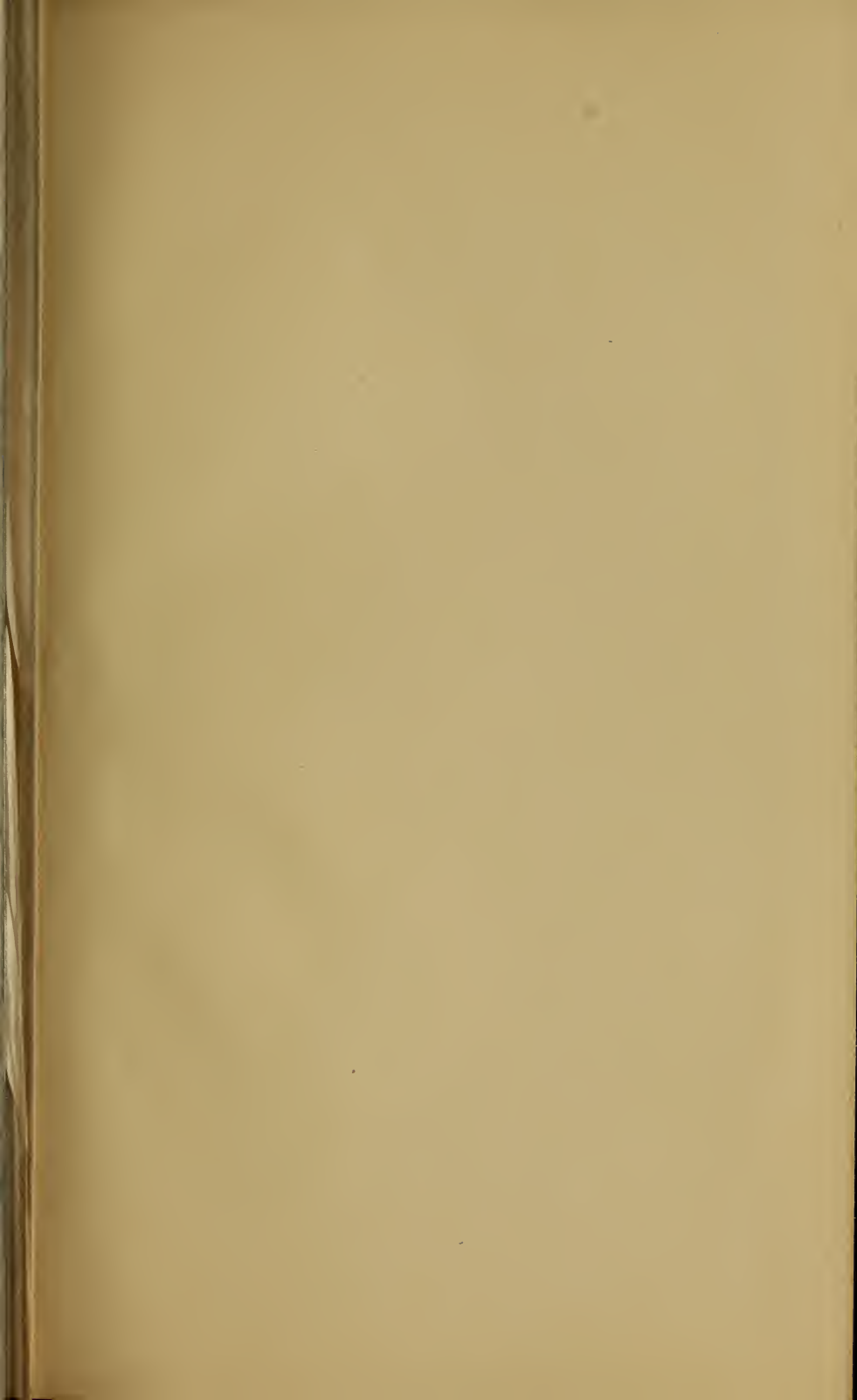
proved by the commissioner of health, certifying that the plumbing work has been properly inspected and tested as required by the provisions of this chapter.

1730. **Penalty.]** Any person or corporation who shall violate any of the provisions of this chapter shall be fined not more than two hundred dollars nor less than twenty-five dollars for each offense; and each day on which such violation shall be allowed or suffered to continue shall constitute a separate and distinct offense.



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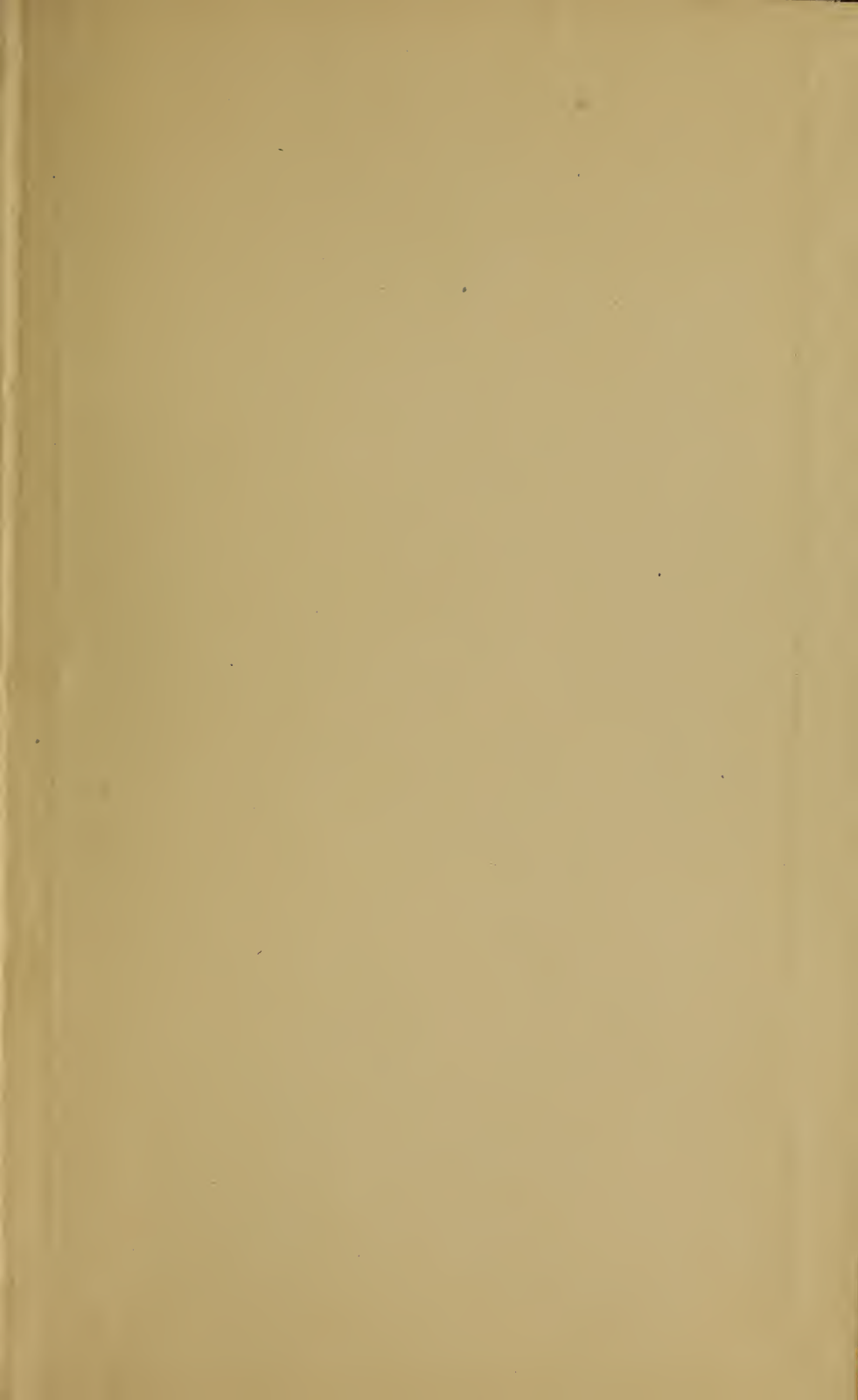


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