CERTAIN LEGAL ASPECTS OF WATER-POWER DEVELOPMENT IN MAINE.*

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INTRODUCTION.

The writer approaches this subject with considerable hesitancy, as he makes no pretensions to a training in law. He was impelled to look into the law of waters by the numerous requests that were received in the office of the Commission regarding the legal features of water-power development in the state of Maine. Furthermore, certain questions occurred to him in his consideration of a policy to be adopted by the state for the development of its water-powers, or, as the Water Storage law requires, " to report a comprehensive and practical plan for the improvement and creation of such water-storage basins and reservoirs as will tend to develop and conserve the water-powers of the state."

Extracts from a number of decisions have been noted that have been of great interest to the writer as bearing directly on the subject-matter, and it is believed will be of general interest to engineers, especially to those practicing in New England. The quotations given below are more in the nature of an introduction to a proposed bill providing for state supervision of the construction of dams, the regulation of storage reservoirs, and the taxation of water-powers.

A large number of court decisions have been read, but the citations given below are intended to represent general principles and not special or unusual cases. Full references are given, so that the facts on which the decisions were based can be looked up, and the subject pursued further if desired, as each case generally has references to other similar ones.

FEATURES OF LAW.

Water-power and water-storage developments in Maine have been based mainly, in so far as legal features are concerned, on the

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Colonial Ordinances of 1641–47; the so-called Mill Act; the common law of waters; to a lesser degree, the act relating to the improvement of marshes, meadows, and swamps; the several acts relating to the procedure for the organization of corporations; and the various decisions of the law courts of the state of Maine bearing on these acts.

Colonial Ordinances, 1641–47.

This act, first adopted by the General Court of the Colony in 1641 and amended in 1647, reads as follows:

Liberties Common.

2. Every inhabitant who is an householder shall have free fishing and fowling in any great ponds, bayes, Coves, and Rivers so far as the Sea ebbs and flows, within the precincts of the towne where they dwell, unless the freemen of the same Towne or the General Court have otherwise appropriated them. Provided that no Towne shall appropriate to any particular person or persons, any great Pond containing more than ten acres of land, and that no man shall come on another man's propriety without their leave otherwise than as hereafter expressed. The which clearly to determine, It is Declared, That in all Creeks, Coves and other places, about and upon Salt-water, where the Sea ebbs and flows, the proprietor of the land adjoining, shall have propriety of the low-watermark where the Sea does not ebb above a hundred rods, and not more wheresoever it ebbs further. Provided that such proprietor shall not by this liberty, have power to stop or hinder the passage of boates or other vessels, in or through any Sea, Creek, or Coves, to other men's houses or lands. And for great Ponds lying in common, though within the bounds of some Towne, it shall be free for any man to fish and fowle there and may pass and repass on foot through any man's propriety for that end, so they trespass not on any man's Corn or Meadow.

A case recently decided by the Supreme Judicial Court of Maine covers in an interesting and thorough, although concise manner, the early history of the various acts of the colonial courts and legislatures upon which the law of Maine is based. (See Conant *v.* Jordan, 107 Me. 227.)

Decisions of Law.

Many decisions have been rendered by the courts on these Colonial Ordinances, among which may be noted the following:

"Although fishing and fowling are the only rights named in the ordinance, it has always been considered that its object was to set apart and devote the great ponds to public use, and that . . . these public reservations, at first set apart with reference to certain special uses only, become capable of many others which are within the designs and intent of the original appropriation. The devotion to public use is sufficiently broad to include them all, as they rise." (West Roxbury *v.* Stoddard, 7 Allen, 158. Watuppa Reservoir Co. *v.* Fall River, 147 Mass. 548, 557.)

It is a rule of law peculiar to Maine and Massachusetts under the Colonial Ordinance of 1641–47 that all great ponds — that is, ponds containing more than ten acres — are owned by the State.

While private property cannot be taken for public use without compensation, the waters of great ponds and lakes are not private property.

Under the ordinance, the state owns the ponds as public property held in trust for public uses. It has not only the *jus privatum*, the ownership of the soil, but also the *jus publicum* and the right to control and regulate the public uses to which the ponds shall be applied.

The authority of the state to control waters of great ponds and determine the uses to which they may be applied is a governmental power, and the governmental powers of the state are never lost by mere non-use. (Auburn *v.* Union Water Power Co., 90 Me. 577.)

The ordinance has been held to be broad enough to justify the state in granting authority to a certain commission to forbid the public navigating the waters of a great pond set aside as a reservoir for water supply. Defendant denied the right of the commissioners to keep him off.

Held: "There is no doubt that the control of the great ponds in the public interest is in the legislature that represents the public. It may regulate and change these public rights or take them away altogether to serve some paramount public interest. . . . The legislature having seen fit to devote the waters of the lake to a public use for the benefit of the inhabitants of the metropolitan water district, it was in its power to deprive the general public of the right to go upon it with boats or otherwise, on the ground

that a safe and advantageous use of the water for drinking, and for other domestic purposes, would be best promoted by terminating this former right and putting the property in the control of the water board." (Sprague *v.* Minon, 195 Mass. 581, 583.)

The waters of great ponds being, by virtue of the ordinance, public waters, may be devoted to any legitimate public use. In the case of Watuppa Reservoir Co. *v.* Fall River, 147 Mass. 548, the city of Fall River was authorized by the legislature to draw daily one million five hundred thousand gallons of water from the North Watuppa Pond (a great pond) and to "apply the water taken under this act to all domestic uses, the extinguishment of fires, and to the public use of the city." The plaintiffs were the owners of manufacturing establishments on the only outlet of the pond and were owners also of the bed and land on either side of the stream, they were incorporated for the purpose of constructing a reservoir in the pond, and had at great expense acquired flowage rights all around the pond, built a dam, raised the water of the pond, and were maintaining their reservoir. The draw-off by the city caused actual injury to plaintiffs, who contended that the statute authorizing such withdrawal of water without compensation to plaintiffs was unconstitutional.

Held: "These are all public purposes. The legislature acting on the conviction that an abundant supply of pure water to the people is of paramount importance, has deemed it to be a wise policy to appropriate the waters of this pond to those public uses without making compensation to those who, owning land on the natural stream flowing from it, have been accustomed to use the water for power as it flows through the stream. Such owners have no vested rights in the waters of the pond, and a majority of the court is of the opinion that the Commonwealth may thus appropriate the waters by its direct action, or may authorize a city or town to do so, without being legally liable to pay any damages to the littoral owners on the pond or on the stream." (Watuppa Reservoir Co. *v.* Fall River, 147 Mass. 548.)

"They [the colonists] reserved to the Colony the property in the ponds themselves, the better to regulate these and other kindred public rights for common good." "The ordinance secures to the Commonwealth, in great ponds, the same kind of

ownership in the water that an individual purchaser of the entire area of a small pond would get by a perfect deed, or by an original grant from the government without restrictions." (Minority opinion, Watuppa Reservoir Co. *v.* Fall River, 147 Mass. 548.)

In the case of the state of Maine, it is to be noticed that the exceptions in the Colonial Ordinance, namely, of ponds "otherwise appropriated" by the freemen of a town, or by the General Court, have never applied here and are not required. We know of no grants by towns, nor by any general court. Here there were no apparent limitations. Here, we feel bound to say, the doctrine of the English common law of private ownership in great ponds was never recognized nor adopted, and fowling on and fishing in them was free from the beginning. (Conant *v.* Jordan, 107 Me. 240.)

The state can at its discretion authorize the diversion of the waters of great ponds for public purposes without providing compensation to riparian owners upon the ponds or their outlets. (American Woolen Co. *v.* Kennebec Water District, 102 Me. 153.)

It is too late in the history of the question in this state to contend that the state has not the constitutional power to grant superior, or even exclusive privileges, in the use of its public rivers to persons or corporations. The state represents all rights and privileges in our fresh-water rivers and streams, and may dispose of same as it seems fit. (Mullen *v.* Penobscot Log Driving Co., 90 Me. 555.)

The extra stores of water collected by the mill owner for his use are his own. They could be taken by the state for the public for a compensation. (Pearson *v.* Rolfe, 76 Me. 389.)

The water of the great natural ponds or lakes cannot be lawfully drawn down below their natural low water line, without legislative authority; nor under the mill act.

A bill in equity may be maintained by the owner of land bounded on a great pond to restrain by injunction mill-owners on the outlet

from drawing off the water in such pond below its natural low-water mark by excavating the channel or deepening the outlet. (Fernald *v.* Knox Woolen Co., 82 Me. 48.)

Lands bounded upon rivers above the ebb and flow of the tide generally extend to the middle of the stream, but lands bounded on fresh-water lakes and ponds extend only to low-water mark. (Stevens *v.* King, 76 Me. 198.)

It seems that land bounded on a natural lake or pond extends only to the water's edge; otherwise if the pond is artificial. (Robinson *v.* White, 42 Me. 209.)

In the conveyance of land bounded on a fresh water pond, which has been permanently enlarged by means of a dam at its mouth, the title extends to the low-water mark of the pond, in its enlarged state. (Wood *v.* Kelley, 30 Me. 47.)

The rule of common law, that riparian proprietors own to the thread of fresh water rivers, has been adopted in this state. (Brown *v.* Chadbourne, 31 Me. 9.)

Below the line of low water, the state owns the beds of navigable rivers and great ponds, and holds them in trust for the public in accordance with the Colonial Ordinance of 1647. (Haynes *v.* Dewitt Ice Co., 86 Me. 319.)

A navigable stream is subject to public use as a highway for the purpose of commerce and travel.

All streams of sufficient capacity in their natural condition to float boats, rafts, or logs, are deemed public highways and as such are subject to the use of the public.

Held: "That the Presque Isle stream above the bridge at Presque Isle village, for a distance of thirty miles, is a navigable stream in fact, etc., applies to passage of stream by boat or canoe." (Smart *v.* Aroostook Lumber Co., 103 Me. 37.)

The Mill Act.

This act (Rev. Stat., Chap. 94) had its origin in Massachusetts in the early part of the last century and has been continued

with slight modifications both in that state and in Maine to the present time. The principles have been handed down in these two states alone, although some features of them have been adopted by neighboring states. The object of the statute, in the preamble to this law at its origin, was as follows:

"Whereas, it has been found, by experience, that when some persons in this province have been at great cost and expenses for building of mills serviceable for the public good and benefit of the town, or considerable neighborhood in or near to which they have been erected, that in raising a suitable head of water for that service, it hath sometimes so happened that some small quantity of lands or meadows have been thereby flowed and damnified, not belonging to the owner or owners of such mill or mills, whereby several controversies and law suits have arisen, for the prevention whereof for the future. Be it therefore enacted," etc. (Ancient Charters, p. 404.)

In 1795, February 27, the legislature of Massachusetts passed an additional or amendatory act, the preamble and first section of which are as follows:

"Whereas, the erection and support of mills to accommodate the inhabitants of the several parts of the state ought not to be discouraged by many doubts and disputes; and some special provisions are found necessary relative to the flowing of adjacent lands, and mills held by several proprietors. Therefore, be it enacted," etc.

"That when any person hath already erected, or shall erect any water mill on his own land or on the land of any other person, by his consent legally obtained, and to the working of such mills it shall be found necessary to raise a suitable head of water; and in so doing any lands shall be flowed not belonging to the owner of such mill, it shall be lawful for the owner or occupant of such mill to continue the same head of water on the terms hereinafter mentioned."

This provision was incorporated into our statutes in 1821.

The intent and main features of the Mill Act in question are contained in the first four sections, which are as follows:

Erection of Mills and Dams, and Rights of Flowage.

Sec. 1. Any man may on his own land, erect and maintain a water mill and dams to raise water for working it, upon and across any stream, not navigable; or, for the purpose of propelling mills

or machinery, may cut a canal and erect walls and embankments upon his own land, not exceeding one mile in length, and thereby divert from its natural channel the water of any stream not navigable, upon the terms and conditions, and subject to the regulations hereinafter expressed.

Sec. 2. No such dam shall be erected or canal constructed on the same stream; nor to the injury of any mill site, on which a mill or mill dam has been lawfully erected and used, unless the right to maintain a mill thereon has been lost or defeated.

Sec. 3. The height to which the water may be raised, and the length of time during which it may be kept up in each year, and the quantity of water that may be diverted by such canal, may be restricted and regulated by the verdict of a jury, or report of commissioners, as is hereinafter provided.

Sec. 4. Any person, whose lands are damaged by being flowed by a mill-dam, or by the diversion of the water by such canal, may obtain compensation for the injury by complaint to the Supreme Judicial Court in the county where any part of the lands are; but no compensation shall be awarded for damages sustained more than three years before the institution of the complaint.

Decisions of Law.

Numerous decisions of the courts of Maine on the Mill Act have been rendered from time to time, among which are the following:

Private property shall not be taken for public uses without just compensation; nor unless the public exigencies require. (Const., Art. 1, par. 21.)

The Mill Act, as it has existed in this state, pushes the power of eminent domain to the very verge of constitutional inhibition. If it were a new question, it might well be doubted whether it would not be deemed to be in conflict with that provision of the Constitution cited above. (Jordan *v.* Woodward, 40 Me. 323.)

Even the reasons for the policy which occasioned such legislation have ceased to be potential, and although from the long and uninterrupted exercise of the rights of mill-owners, under this act, it must be considered constitutional, yet, no extension of their rights over private property can be allowed by implication. (Jordan *v.* Woodward, 40 Me. 317.)

The constitution of the state, Art. 1, Sect. 21, in the Declaration of Rights, provides that "private property shall not be taken for public uses, without just compensation, nor unless the public exigencies require." And it is held to be necessarily implied that private property cannot be taken for private uses without the consent of the owner, with or without compensation.

Private property may be taken by the sovereign power of the government in the exercise of the right of eminent domain for purposes of public utility.

Interests in water, as well as in land, may be taken by virtue of this power, and both are equally the subjects of compensation. (Hamor *v.* Bar Harbor Water Co., 78 Me. 127.)

Whether a public exigency exists for the granting of the exercise of the right of eminent domain, is for the legislature to determine. Whether the use for which it is granted is a public one, the court must decide. (Brown *v.* Gerald, 100 Me. 352.)

Whether there is such an exigency, — whether it is wise and expedient or necessary that the right of eminent domain should be exercised, in case the use is public, — is solely for the determination of the legislature. The legislature however cannot make a private use public by calling it so. Whether the use for which it is granted is a public one must in the end be determined by the court. (Brown *v.* Gerald, 100 Me. 360.)

These cases relate to railroads, water companies, boom companies, canals, and the improvement of public streams. As to such cases there is now no doubt. Their uses are rightly deemed public. The public, or such part of the public as has occasion to, may directly enjoy them. Such uses are of great public benefit. (Brown *v.* Gerald, 100 Me. 361.)

We think it should be conceded that the taking of land for the purpose of supplying the public, or so much of the public as wishes it, with electric lighting, is for a public use. . . . The charter unquestionably gives the company the right of eminent domain for the purpose of supplying a current for electric lighting. (Brown *v.* Gerald, 100 Me. 356.)

Saw mills and grist mills, carding mills and fulling mills, cotton gins and other mills, which are regulated by law, and obliged to serve the public, are undoubtedly a public use. But, as respects all other kinds of mills, although they may be a public benefit, they are not a public use within the meaning of the constitution. (State *v.* Edwards, 86 Me. 102.)

Manufacturing, generating, selling, distributing, and supplying electricity for power, for manufacturing or mechanical purposes, is *not* a public use for which private property may be taken against the will of the owner.

A corporation empowered by its charter to generate and transmit electric power, for lease or sale, and having granted to it the right of eminent domain, does not by accepting the provisions of its charter become a quasi-public corporation, and does not thereby become invested with the right to exercise the eminent domain for the purpose of supplying electric power for manufacturing purposes. (Brown *v.* Gerald, 100 Me. 352.)

The legislature has the constitutional power to authorize the erection of dams upon non-tidal public streams to facilitate the driving of logs, without providing compensation for mere consequential injuries where no private property is appropriated.

Where such a dam, erected in accordance with legislative authority, causes an increased flow of water at times in the channel below, thereby widening and deepening the channel and wearing away more or less the soil of a lower riparian owner, it is not such a taking of private property as entitles the owner to compensation. It is a case of *damnum absque injuria*. (Brooks *v.* Cedar Brook & C. Imp. Co., 82 Me. 17.)

By our Mill Act., Rev. Stats., Chap. 94, any person may build upon his own land across a non-navigable stream a water-mill and dams to raise a head of water for working it, and may thereby flow back the water of the stream upon the lands above as high and as far as he deems necessary for the profitable working of his mill, subject only to the conditions and restrictions named in the act itself. The land owners must submit to the flowage, and content themselves with the pecuniary compensation to be obtained through proceedings provided by the statute. Such mill owner

can also in the same way increase the height of his dam and the extent of the flowage from time to time as the exigencies of his business may seem to him to require, he making increased compensation for the increased flowage.

But there is one important and absolute exception to the above-named statutory right to retard the natural flow of a stream: "No such dam shall be erected (or canal constructed) to the injury of any mill (or canal) lawfully existing on the same stream." (Section 2 of Mill Act, Rev. Stats., Chap. 94.) It follows, as a corollary, that when a second mill has been built above the flowage of the first and older mill and dam, such flowage cannot be increased by raising the dam or by other appliances so as to lessen the original efficiency of the mill above. Whatever the greater age of his mill, the right of a mill owner to increase his head of water ceases when the flowage begins to injure the operation of a mill, however new, if already lawfully erected before the injurious flowage began. So long, however, as the additional flowage does not reach up so far as to injuriously affect some mill by that time lawfully erected, the right to increase the flowage is unlimited except as limited by the statute itself. This increase can be effected by raising the height of the solid dam, by the use of flashboards, or by other appliances. The owners of *unoccupied* water powers, or mill sites, must submit to have them flowed out and made useless, and must content themselves with the statutory compensation. (National Fibre Board Co. *v.* L. & A. Electric Co., 95 Me. 321.)

The plaintiff whose land has been overflowed by a *reservoir dam* erected by the defendants upon their own land, but for the use of a mill not owned by them nor standing upon their land, may maintain an action on the case for the damages caused by such dam. The process by complaint, under Rev. Stats. 94 (Mill Act), cannot be sustained upon these facts. (Crockett *v.* Millett, 65 Me. 191.)

As between proprietors of dams on the same stream, he has the better right who was first in point of time.

Unless the plaintiff abandoned his site, the temporary destruction of his dam would not enable the defendant to acquire, as against the plaintiff, the right of a prior occupant. (Lincoln *v.* Chadbourne, 56 Me. 197.)

Mill owners have a right to maintain their dam as it was at the time of the deeds to them; and if, through want of repair for a series of years subsequent to that, it lets the water escape, the owners have the right to repair and tighten it, although the water is thereby raised higher and retained longer than it was while the dam was in a dilapidated condition. (Butler *v.* Huse, 63 Me. 447.)

Natural Flow.

Thurber *v.* Martin, 2 Gray, 394, was an action of tort for obstructing the natural flow of the water, and diverting it from the plaintiff's mill. In delivering the opinion of the Court, Chief Justice Shaw thus stated the law of the case:

"Every man has the right to the reasonable use and enjoyment of a current of running water, as it flows through or along his own land for mill purposes, having a due regard to the like reasonable use of the stream by all the proprietors above and below him. In determining what is such reasonable use, a just regard must be had to the force and magnitude of the current, its height and velocity, the state of improvement in the country in regard to mills and machinery, and the use of water as a propelling power, the general usage of the country in similar cases, and all other circumstances bearing upon the question of fitness and propriety in the use of the water in the particular case." (Davis *v.* Winslow, 51 Me. 292.)

Every proprietor of land on the banks of a river or stream has naturally an equal right to the use of the water; and this right to use implies a right to control, detain, and even diminish the volume of the water, — but only to a reasonable extent.

What is a reasonable detention depends upon the size of the stream, as well as upon the uses to which it is subservient, as the detention must necessarily be sufficient to accumulate the head of water requisite for practical use.

The right of detention is not limited to time necessary for repairs or to extraordinary occasions, but applies to the ordinary use of such streams, provided it be not an unreasonable use or detention. (Davis *v.* Getchell, 50 Me. 602.)

Thus he may apply it to domestic purposes or purposes of irrigation, but not to such an extent as unreasonably to diminish its quantity. (Davis *v.* Getchell, 50 Me. 604.)

In Pitts *v.* The Lancaster Mills, 13 Metcalf, 157, the defendants, owners of a mill and dam above an ancient mill dam of the plaintiffs, rebuilt and raised that dam above its former height, whereby the water was wholly cut off from the plaintiff's mill for a period of six days, greatly to his detriment. The case was submitted to the Court upon an agreed statement of facts, and a non-suit was ordered, the Court assigning as a reason therefor, that "this was not an unreasonable use of the watercourse by the defendants, and that any loss which the plaintiffs temporarily sustained by it was *damnum absque injuria*." (Davis *v.* Winslow, 51 Me. 292.)

A mill owner has no right to unnecessarily and unreasonably detain water from those who have a right to use it subsequent to his own; and he will be liable in damages for doing so.

What is a reasonable use and what an unreasonable detention, are questions of fact for the jury. (Phillips *v.* Sherman, 64 Me. 171.)

The new dam raised the outlet some three feet, and held the water at that level, but did not divert it. No more water was thereby taken from the stream than the capacity of the 24-in. pipe would divert. That quantity might be taken, even if no water should be left to flow in the natural channel. The natural flow was substantially the same with the new dam as with the old or without any dam. (Hamor *v.* Bar Harbor Water Co., 92 Me. 364, 377.)

In the case of Mullen *v.* Penobscot Log Driving Co., 90 Me. 555, the defendant was a company chartered by the legislature for driving all logs of all owners in the West Branch waters, and the company was given the exclusive control and management of the waters of the river, so far as necessary to enable it to successfully execute the obligations resting upon it, an obligation in some respects partaking of the character of a public trust.

Held: the plaintiff was not entitled even to the natural flow or to draw from the reserves of water in order to create what would at the time and place be equivalent to the natural flow, so long as the company needed or would be likely to need the same water for driving its own logs to market. The defendant's right was the superior right. The plaintiff's right was secondary and conditional. Such is the inevitable effect of the grants to the company by the legislature. The stores of water are accumulated by using the natural flow until the necessary head is obtained. It was not that the defendant company would not let the water down when it needed its use itself, but the plaintiff desired the use and advantages of it in advance of the use of it by the company.

Floatable Streams.

A stream which, in its natural condition, is capable of being commonly and generally useful for floating boats, rafts or logs, for any useful purpose of agriculture or trade, though it be private property, and though it be not strictly navigable, is subject to the public use, as a passageway.

Though the adaptation of the stream to such use may not be continuous at all seasons, and in all its conditions, yet the public right attaches, and may be exercised whenever opportunities occur.

When a stream is inherently, and in its nature, capable of being used for the purpose of commerce, for the floating of vessels, boats, rafts, or logs, the public easement exists.

In such a stream, the right in the public exists, notwithstanding it may be necessary for persons floating logs thereon to use its banks. (Brown *v.* Chadbourne, 31 Me. 9.)

In order to make a stream floatable it is not necessary that it should be so at all seasons of the year. It is sufficient if it have that character at different periods with reasonable certainty and for such a length of time as to make it profitable for that purpose.

The question is whether the stream is floatable without the dam. If it is not, the plaintiff could not avail himself of the fact that it is made so by the defendant's dam. If the stream was originally private property, exclusively so, any improvements made upon it by the owner would give the public no rights on it. But if on the other hand the stream is by nature floatable, those who

have occasion to use it as such may do so and may also have the benefit of such improvements as may be put upon it having reasonable regard to the rights of the owner. (Holden *v.* Robinson Co., 65 Me. 216, 217.)

The judge instructed the jury that if the river in its natural state was capable of being useful for floating boats, logs, etc., for purposes of trade or agriculture, the plaintiff was entitled to recover, however long the dam of the defendant might have stood; and notwithstanding his use of the river had been open, notorious, and adverse, and although no logs had ever been floated over the falls where the dam now is. (Knox *v.* Chaloner, 42 Me. 150.)

Whether a stream is capable of being used as a passageway for the purposes of commerce is a question of fact for the jury. (Treat *v.* Lord, 42 Me. 552.)

The presiding judge instructed the jury that if Cold Stream was such a stream as the public would have an easement in for the driving of logs, on account of its inherent capacity for being so used . . . that the right of way was in the waters, and the plaintiff in such case would have no authority to prevent its exercises; that he could by law erect and continue his dams and mills, but was bound to provide a way of passage for the defendants' logs; that some streams are entirely private property, and some are subject to the public use and enjoyment; that the test has been sometimes held to consist in the fact whether they are susceptible or not of use as a common passageway for the public. And, by request of plaintiffs' counsel, the judge instructed the jury " that if the stream was incapable in its natural state of being used to propel logs without the erection of dams or other structures on plaintiffs' land, there could be no public servitude."

The judge also instructed the jury that the law, as established in this state, and which they would take for their guide, was, that " the true test to be applied in such cases is whether or not a stream is inherently and in its nature capable of being used for the purposes of commerce, for the floating of vessels, boats, rafts, or logs — when a stream possesses such a character, then the easement exists, leaving to the owners all other modes of use not in-

consistent with it"; that a stream might possess such a character, even though, when the forest was first opened on its shores, it were so obstructed by fallen trees, brush and driftwood, that neither vessels, boats, rafts, or logs could be floated, through its course, upon its surface, until such obstructions had been removed; that, perhaps, many such streams, when the forests about them were first opened, would need such clearing out before they could be profitably used; and that it was a question for the jury to determine, from the evidence in the case, whether or not the stream was inherently and in its nature capable of being used for the purposes of commerce, for the floating of vessels, boats, rafts, or logs. (Treat *v.* Lord, 42 Me. 555, 556.)

The controversy in the case of Pearson *v.* Rolfe, 76 Me. 380, arose from a conflict between log-owners and mill-owners as to their respective rights in the use of the water at certain falls in the Penobscot River in the town of Old Town. Pearson represents mill-owners, Rolfe represents log-owners. Pearson has mill structures upon his privilege, with such appendages as dams, sluices, and booms. Rolfe had a quantity of logs in the river which he was unable to drive over the dam at Pearson's mills, *unless Pearson would shut down his mill-gates*, thereby suspending his own business of manufacturing, until water enough should accumulate in his mill-pond to float the logs over. This Pearson refused to do, basing his refusal upon the allegation that the driftway in the dam, without shutting down his working gates, afforded all the facility for floating logs by his mills that existed in the river at that place in its natural state, — as much as there would be, provided his mills and all of his structures were entirely out of the way. Rolfe contends that the facts were otherwise, but further contends that Pearson, even if he represents the facts truly, having it within his power to furnish more water than the natural facility and flow, was under an obligation from his situation to do so.

The counsel for Rolfe contended that the doctrine of *reasonable use* applied; and that, if the river in its natural condition would not furnish a sufficient flow, Rolfe was entitled to the use of the river in its changed condition for his purposes. We think this position cannot be maintained. Our idea is that the doctrine of reasonable

use does not apply when the river is *not* naturally floatable; but does apply when it *is* naturally floatable or log-navigable, when both parties can use the natural flow and desire to use it at the same time. We are well satisfied that, whenever logs cannot be driven over a particular portion of a fresh water river such as the Penobscot, above the flow and ebb of the tide, while in its natural condition, such portion of the river is not at such time navigable or floatable, and that the use of the water at such time, and place, belongs exclusively to the riparian proprietor, so far as he needs the same for his own purposes.

The Penobscot River at the place in question, as before intimated, was floatable only, — floatable, because capable of valuable use in bearing the products of the forests to markets or mills. A floatable stream is the least important of the classes of streams called navigable. Rolfe had the right to use the river so far as it was a floatable river, in such parts or places and at such times as it was floatable. He had the right to avail himself of its navigable capacity for floating logs. But only so far as it was navigable or floatable in its *natural condition.* It is the natural condition of a stream which determines its character for public use, and it must be its navigable properties in a natural condition unaided by artificial means or devices. It is well settled in this state and elsewhere, that, if a stream is not susceptible of valuable use to the public for floatable purposes, without erections for raising a head, it cannot legally be deemed a public stream, even though it might be easily converted into a floatable stream by artificial contrivances. Wadsworth *v.* Smith, 11 Me. 278; Brown *v.* Chadbourne, 31 Me. 9; Treat *v.* Lord, 42 Me. 552; Nuis. (2d. ed.), 463, and cases.

The log driver takes the waters as they run, and the bed over which they flow as nature provides. Nor has any person the right, unless upon his own land, or under legislative grant, to remove natural obstructions from the bed of a river in order to improve its navigation. This is clear from the same authorities.

On the other hand, what rights have the adjudged cases accorded to the riparian proprietor in merely floatable and non-tidal streams? It is settled in this state that he owns the bed of the river to the middle of the stream. He owns all the rocks and natural barriers

in it. He owns all but the public right of passage. The right of passage does not include any right to meddle with the rocks or soil in the bed of the river. If rocks are taken, the owner may sue in trespass for the act, or may replevy them from the wrongdoer. (Pearson *v.* Rolfe, 76 Me. 383–386.)

Let it be borne in mind that the complaint against Pearson is not that he kept back the natural flow, but that he refused to keep it back, — that he would not shut down his gates and suspend his business in order to keep it back. The demand was that he should suspend his own sawing and shut down his mill-gates until the accumulation of water in the mill pond might be enough to create a navigable flow through the public passage. (*Supra*, p. 387.)

Held: A mill-owner upon a floatable river is not under legal obligation to provide a public way, for the passage of logs over his dam, better than would be afforded by the natural condition of the river unobstructed by his mills. The right of passage is to the natural flow of the river or its equivalent.

Held: A mill-owner is not under legal obligation to furnish any public passage for logs over his dam or through his mills at a time when the river at such place, in its natural condition, does not contain water enough to be floatable if unobstructed by mills, although the river is generally of a floatable character.

Held: Whenever a river, with mills upon it, is floatable, and the mill-owner and those who want to float logs past the mills are desirous of using the water at the same time, all parties are entitled to reasonable use of the common boom; the right of passage is the superior, but not an usurping, excessive, or exclusive, right; the law authorizing mills puts some incumbrance upon the right of passage. (*Supra*, p. 380.)

The reasonableness of the use depends upon the nature and size of the stream, the business or purpose to which it is made subservient, and on the ever-varying circumstances of each particular case. Each case must stand upon its own facts, and can be a guide in other cases only as it may illustrate the application of general principles. (*Supra*, p. 390.)

Measurement of Water-Power.

Grants and reservations relating to water and water-power are various in their nature and effect. Some refer to a certain extent of water-power sufficient for the propulsion of a specific mill or

machinery: Warner *v.* Cushman, 82 Me. 168; Hammond *v.* Woodman, 41 Me. 177; Covel *v.* Hart, 56 Me. 518, 522; Elliott *v.* Sheperd, 25 Me. 371; Ashley *v.* Pease, 18 Pickering, 268. Some to a quantity of water to be restricted to a specific purpose: Deshon *v.* Porter, 38 Me. 293. Others to "such quantity of water as the grantor or his predecessor have been accustomed to use": Avon Man'f'g Co. *v.* Andrews, 30 Conn. 476. Still others, to such quantity of water as will flow through a gate of specific dimensions under a specific head of water: Bardwell *v.* Ames, 22 Pickering, 333; Tourtellot *v.* Phelps, 4 Gray, 373. Head is a well-known material factor in determining the quantity of water which will pass through a given aperture in a given time. Canal Co. *v.* Hill, 15 Wallace, 94, 102. (Gray *v.* Saco Water Power Co., 85 Me. 528.)

The United States Supreme Court has held as follows:

A grant of a right to draw from a canal so much water as will pass through an aperture of given size and given position in the side of the canal is substantially a grant of a right to take a certain quantity of water in bulk or weight. What that quantity is may be ascertained from the character and depth of the canal, the circumstances under which the water is to be drawn, and the state of things existing at the time the grant is made.

The grantee will be entitled to draw this quantity even though it may be necessary to have the aperture enlarged if it can be done without injury to the grantor. (Canal Co. *v.* Hill, 15 Wallace, 94.)

Where a grantor, owning all the water-power on both sides of a stream, conveyed the saw mill thereon, "with the right of use of all water not necessary in driving the wheel, or its equal, now used to carry the machinery in the shingle mill, — meaning to convey a right to all the surplus of water not required for the shingle mill or other equal machinery," — and it appeared that, at the time of the conveyance, the shingle mill contained various other machinery besides the shingle machine:

Held, that the parties thereby fixed the measure of the water not conveyed, and that its use was not confined to the specific purpose of driving the shingle machine.

Held, also, that the owner of the shingle mill might lawfully put into it a board saw, and use the same, provided the wheel used for propelling it consumed no more water than was previously used, even if the owner of the saw mill thereby lost all his patrons. (Warner *v.* Cushman, 82 Me. 168.)

A reservation of water necessary and sufficient to carry two run of mill stones.

Held, a reservation of a quantity sufficient for the purpose with the machinery in actual or contemplated use at the mill at the time the reservation was made, and not restricted then or afterwards to such quantity as with improved machinery and facilities would perform the same work.

Held, also, to reserve an absolute right to the use of the quantity of water named; and to be a reservation of a fixed measure of power to be used for any purpose, and not confined to the grist mill. (Blake *v.* Madigan, 65 Me. 522.)

A grant by the owner of a dam of the right to use five hundred square inches of water, for the purpose of creating power, as a substitute for a prior grant, in which the head was not mentioned, carried by implication the right to draw the water from the dam, at the head of which water was ordinarily taken under the prior grant. (Oakland Woolen Co. *v.* Union Gas & Electric Co., 101 Me. 199.)

The Franklin Company, the then owner of a dam lawfully maintained across the Androscoggin River at Lewiston for raising a head of water for generating power, granted by an instrument of indenture to the City of Lewiston the right to draw from its dam "water to the extent of 600 horse-power for the purpose of pumping," etc. (the head of water being fixed at not less than 25 ft. nor more than 30 ft.). After full consideration of the subject matter of the grant, the situation, the history and character of the negotiations, and all the language used by the parties in the instrument finally signed by them as defining their rights and obligations, thereunder, *held:*

a. The grant is not of water-power, but only of water for power, and the city is entitled, not to a certain quantity of power, but only to draw a certain fixed quantity of water from which

to extract as much power as it may by its own agents and appliances.

b. From the evidence and the admissions of the plaintiff it appears that the phrase "to the extent of 600 horse-power" means in its connection, efficient, practical horse-power upon a well-understood and recognized basis of seventy-five per cent. of efficiency, and hence the city is entitled to draw for pumping purposes water to the extent of 800 nominal or theoretical horse-power and no more. (Union Water Power Co. *v.* Lewiston, 101 Me. 565.)

Some time in the 80's an interesting case was tried in one of the Maine lower courts, known as the "Brunswick Water Case." Mr. J. Herbert Shedd testified as to the value of a "saw," a term used in the early days to designate the horse-power required to operate the old undershot and flutter wheels used in the saw mills on the Androscoggin River at Brunswick. His results, based on several different methods of computations, gave one "saw" equal to 120 nominal horse-power, or, "that about 120 horse-power of water might be taken to be the measure of water which was used anciently to run one saw." This was not effective horse-power based on the efficiency of the wheels, but theoretical, based on the discharge and head. He stated that the old flutter wheels had an efficiency of from one sixth to one eighth of the total power, and that the actual power to run an old-fashioned saw was about 15 to 20 horse-power.

IMPROVEMENT OF MARSHES, MEADOWS, AND SWAMPS.

The provisions of Revised Statutes entitled, "Improvement of Marshes, Meadows, and Swamps" (Chap. 26, Sec. 42–70), are important as bearing on developments of water courses in this state although of somewhat lesser importance than the Mill Act previously described. The first five sections read as follows:

Sec. 42. When any meadow, swamp, marsh, beach, or other low land is held by several proprietors, and it becomes necessary or useful to drain or flow the same, or to remove obstructions in rivers or streams leading therefrom, such improvements may be effected under the direction of commissioners in the manner hereinafter provided.

Sec. 43. Such proprietors, or a majority of them in interest, may

apply by petition to the Supreme Judicial Court sitting in the county where the lands or any part of them lie, setting forth the proposed improvements and the reasons therefor, and the court shall cause notice of the petition to be given in such manner as it may judge proper, to any proprietors who have not joined in the petition, that they may appear and answer thereto.

Sec. 44. If upon hearing, it appears that the proposed improvements will be for the general advantage of the proprietors, the court may appoint three suitable persons as commissioners, who shall be sworn to the faithful discharge of their duties; view the premises, notify parties concerned, hear them as to the best manner of making the improvements, and prescribe the measures to be adopted for that purpose.

Sec. 45. They shall, according to the tenor of the petition and order of court, cause dams or dikes to be erected on the premises, at such places and in such manner as they direct; may order the land to be flowed thereby for such periods of each year as they deem most beneficial; and cause ditches to be opened on the premises, and obstructions in any rivers or streams leading therefrom to be removed; and they shall meet from time to time, as may be necessary, to cause the works to be completed according to their directions.

Sec. 46. They may employ suitable persons to erect the dams or dikes, or to perform the other work, under their direction, for such reasonable wages as they may agree upon; unless the proprietors do the same in such time and manner as the commissioners direct.

ORGANIZATION OF CORPORATIONS.

The procedure for the organization of corporations in this state is in accordance with the provisions of law as follows: Rev. Stats., Chap. 47; Pub. Laws, 1903, Chap. 235; Pub. Laws, 1905, Chaps. 85, 162, 171, 172; Pub. Laws, 1907, Chaps. 16, 71, 86, 109, 154, 172, 185.

Section 2 of Chapter 47 of the Revised Statutes has an important bearing on what follows regarding proposed legislation for the creation of drainage districts, and the state supervision of the construction of dams and control of reservoirs. The section in question is as follows:

Acts of incorporation, passed since March seventeen, eighteen hundred and thirty-one, may be amended, altered or repealed by the legislature, as if express provision therefor were made in

them, unless they contain an express limitation; but this section shall not deprive the courts of any power which they have at common law over a corporation or its officers.

PRESENT STATE SUPERVISION OF DAMS.

Section 43 of the Mill Act (Rev. Stats., 94) provides as follows:

The governor, with the advice and consent of the council, shall annually appoint a competent and practical engineer, a citizen of the state, who shall hold said office until his successor is appointed and qualified, and who shall upon petition of ten resident taxpayers of any town or several towns, the selectmen or assessors of any town, or the county commissioners of any county, inspect any dam or reservoir located in such town or county, erected for the saving of water for manufacturing or other uses, and after personal examination and hearing the testimony of witnesses summoned for the purpose, he shall forthwith report to the governor his opinion of the safety and sufficiency thereof.

The paragraph above quoted was adopted in 1875. The next section provides that, in case the dam is reported as unsafe, the owners shall immediately repair same and in default thereof may be enjoined from the use of the dam, and the waters behind the dam may be discharged therefrom. When the dam is reported as safe the expenses of inspection shall be paid by the state, and when adjudged unsafe and insufficient, by the owner or occupant of the dam.

Since 1883 to the present time, nine separate accounts, totaling $260.57, have been paid by the state under the above provisions of law, and it is safe to assume that a less number of inspections, if any, have entered the decree of unsafe and insufficient.

The act creating the State Water Storage Commission was passed in 1909, Section 4 providing as follows:

Every person, firm or corporation before commencing the erection of a dam for the purpose of developing any water-power in this state, or the creation or improvement of a water-storage basin or reservoir for the purpose of controlling the waters of any of the lakes or rivers of the state, shall file with said commission for its information and use copies of plans for the construction of any such dam or storage basin or reservoir and a statement giving the location, height and nature of the proposed dam and

appurtenant structures, and the estimated power to be developed thereby, and in case a dam is to be constructed solely for the purpose of water storage and not for the development of a water power at its site, plans and statements shall be filed with the commission showing the extent of the land to be flowed, the estimated number of cubic feet of water that may be stored and the estimated effect upon the flow of the stream or streams to be affected thereby. Every person, firm or corporation shall, as soon as practicable, after this act takes effect, file similar plans, reports and estimates in relation to any dam or storage basin or reservoir then in the process of construction by them.

There are no mandatory provisions compelling the filing of plans, and there is absolutely no mention of a state examination of the sufficiency of the design or provision for inspection during construction.

PROPOSED LEGISLATION.

From the confusion of a year or so ago, regarding the relationship of the public to quasi-public service companies and corporations, a method of procedure is slowly being evolved in the various states. It is largely taking the form of the appointment of public utilities commissions or of commissions with similar standings where, through their powers conferred upon them by legislative acts, the public have an intimate control of the affairs of corporations.

It is believed that some kind of control of Maine's water-powers and storage basins should be exercised by the state. Development of our water-powers is progressing, and the state should encourage every effort in this direction, but not to the detriment of its present or future interests. Concentration of water-power control and mergers of various companies have taken place during the past year in this state, and it is believed that public regulation is necessary. The entire subject is at present in a formative stage, and methods of procedure, policies, and ideas have not yet thoroughly crystallized. It is a matter for discussion and consideration by many minds.

A bill, introduced late in the session of the last legislature, 1911, having the approval of the chief engineer, provided for state regulation of water-power and water-storage companies. Pro-

vision was made for enlarging the powers of the State Water Storage Commission and placing the operations of the act under its direction. The measure in question was something entirely new in so far as this state was concerned, but it contained nothing that had not been adopted by one or the other of several states, including New York, Wisconsin, Pennsylvania, and Oregon. At the time given for the hearing of the bill before the legal affairs committee of the legislature, nearly all of the large water-power interests of the state were represented. The proponent of the measure realized that it was late in the session for adequate consideration of the various features of the bill and he therefore suggested to the committee that the bill be referred to the next legislature, which was done.

There is given below the text of the bill proposed by the chief engineer. It is somewhat modified from the proposed act that was referred to the 1913 legislature. The main intent of many of the features of the bill is to place the operations of water-storage and power-companies under an engineering commission. Many difficulties that now come before the legislative committees should be obviated through its operation. The following is a brief discussion of the various sections.

Section 1 empowers the State Water Storage Commission to divide the state into drainage districts by watershed lines for the purpose of creating administrative districts in order to carry out the provisions of the act.

The purpose is stated to be the state control and regulation of all great ponds of the state and all reservoirs created or hereafter created in part or in whole on any state lands or public lots. The section further authorizes the commission to mark, by permanent monuments, heights to which water may be raised or lowered on the reservoirs of the state, and further authorizes the commission to supervise the time and extent of the drawing of water from such reservoirs. Some such control is deemed necessary on account of the advantages that are given to various reservoir companies by later provisions of the act, especially Section 16, given below.

Exceptions have been taken to this latter provision as impairing existing contracts that the state has made with various water-storage companies through charters granted in the past. It is

believed that these objections cannot stand in the light of quotations given above; that is, the decision of the Supreme Judicial Court that the state owns great ponds and that the state has not lost the authority to control the waters of such great ponds; and the declaration of the Revised Statutes of Maine that all charters granted since 1831 may be amended, altered or repealed, by the legislature.

Section 1 places a restriction on the state commission by requiring it to regulate reservoirs under its control so that all water users shall derive the greatest benefit.

The section further provides that an appeal may be had from the decisions of the commission to a board of arbitration to consist of three hydraulic engineers to be appointed by a judge of the Supreme Judicial Court. The term "reservoir," as used in the bill, is defined as any storage basin having an available capacity of over 200 000 000 cu. ft. This provision was inserted in order that the state commission would be relieved of the operations of small reservoirs, especially those created by mill dams on the various rivers of the state. The 200 000 000 cu. ft. capacity is simply an arbitrary figure and might be changed if deemed advisable. This limiting capacity does not apply to reservoirs created on great ponds, as it is believed that the state should control all reservoirs on all the great ponds of the state.

Section 2 defines the term "concession" within the meaning of this act.

Section 3 declares what a public utility is within the meaning of the act.

Section 4 of the bill provides that the drainage districts created shall be in charge of district superintendents appointed by the commission through recommendation of the various water users of the district in question. This provides for the appointment of men intimately familiar with the basin, by the water users in that basin. The intent of this feature of the act is, that in case any of the water users are not satisfied with the acts of the district superintendents, appeal may be had to the state commission.

Section 5 provides that any engineers of, or members of, the state commission shall have free access to the buildings and grounds of water storage companies, shall have access to books, accounts,

and plans of such companies as are necessary for the purposes of the act.

Section 6 is an important section, giving authority to the state commission to pass upon and accept or reject any plan for dams constructed in the state.

The rejection of the plans is to be only on the grounds of the inadequacy of engineering features, and in this connection a board of arbitration is furthermore provided for. The grounds for this section are on account of public safety and of publicity. Up to the present time the state of Maine has not felt the need of suitable engineering supervision of plans for storage or power dams. The time has now arrived, however, when such supervision should be had on account of the construction of larger and higher structures of this nature.

Section 7 provides that certificates of incorporation of water-storage or water-power companies shall first be filed with the State Water Storage Commission before they are approved by the attorney-general. It further provides that such certificates shall designate the body of water that is proposed to be dammed.

Section 8 has a similar object in view as the preceding section, namely, that of publicity, in that no sale, assignment, etc., of any franchise of any corporation formed for the development of storage or water-power shall be valid until it has been filed with the Water Storage Commission.

Section 9 provides that the state of Maine may at any time in the future take over the physical properties of any corporations hereafter organized for the development of water storage in the state. This is the usual provision now inserted in legislative charters for large water storage or power companies.

Section 10 provides that time limit for all concessions granted under terms of this act shall be from twenty-five to sixty years, the period of termination being determined by the State Water Storage Commission at the time of the approval of the concession. Provision is also made for possible extension of the charter.

Section 11 provides for an annual tax on the gross receipts of all water-power companies. The first draft of this section contemplated an annual tax or rental based on the horse-power developed, with provision for deduction on account of transmission

losses. However, there is an objection to this method in that the man that sells his power at a lower rate is taxed higher than one who sells his power at a higher rate. To overcome this inequality the tax is to be assessed on a percentage of the gross receipts. Provision is made for the tax being assessed on a sliding scale.

Section 12 provides a penalty for non-payment of taxes.

Section 13 requires the keeping of such accounts and records as the commission deems necessary.

Section 14 provides that whenever the owner of any dam desires to take or overflow any land, he shall apply to the commission for the approval of his request, and whenever said approval is given, right of eminent domain may be exercised under the so-called mill act.

Section 15 provides that whenever the owner of any concession that has received the approval of the State Water Storage Commission desires to overflow any great pond or any public lots or state lands, application shall be made to the Water Storage Commission. The said commission is then to make an engineering investigation of the matter and report to the next legislature results of its investigations, together with its recommendations.

Section 16 provides for the reimbursement to persons or companies who make expenditures in the creation or improvement of storage reservoirs. Such owners shall be paid by the state of Maine all reasonable costs of operation and maintenance and a net annual return for twenty years of five per cent. of the cash spent in creating, improving, or increasing storage. Furthermore, all water users below, who are benefited by such increase, shall pay their proportionate share of the cost of operation and maintenance of the reservoirs and their proportional amount of the net annual return for twenty years of five per cent. of the money invested. In other words, if a person or company goes to the expense of creating, increasing, or improving storage, they are reimbursed by all the water users on the stream benefited thereby.

Section 17 provides for the installation of suitable and accurate meters and other instruments adequate for the measurement of electrical energy generated by any person, firm, or corporation in the state, and also provides for a penalty in case such meters are not installed within a prescribed limit of time. The commission

is given power, however, to extend the time in which the installation must be made before the penalty attaches.

A circular letter was sent to the various light and power companies in the state, requesting them to report, among other matters, the total annual output of the generators in kilowatt hours. Answers to this question were meager, and in many cases where figures were given they were estimated. This is generally due to the fact that many companies, especially smaller ones, have no measuring devices for recording the total annual output in kilowatt hours of generating stations. It will not be many years before a Public Utilities Commission is created by statute in this state, and answers to the questions on the form will be required by that commission.

Section 18 provides for an appeal to the Supreme Judicial Court against any decisions of the State Water Storage Commission.

Drainage District Act.

The bill in question is as follows:

An Act for the creation of drainage districts, the supervision of the construction of dams, and the control and regulation of storage reservoirs.

Be it enacted by the People of the State of Maine, as follows:

Section 1. The State Water Storage Commission is hereby authorized and empowered to divide the state into drainage districts by watershed lines for the purpose of controlling and regulating all great ponds of the state and all reservoirs created or hereafter created in part or in whole on any state lands or public lots of the state; and said commission is hereby authorized and empowered to mark by permanent monuments and bench marks the heights to which water may be raised or lowered on the great ponds of the state and on all reservoirs created or hereafter created on any state lands or public lots of the state; and, furthermore, the said commission is hereby authorized and empowered to supervise and control the times and extent of the drawing of water from all great ponds and from the reservoirs created or hereafter created on any state lands or public lots of the state.

All reservoirs under the supervision and control of the State Water Storage Commission shall be regulated by said commission so that all the water users shall derive the greatest benefit.

Provided, however, that if any water user feels himself aggrieved

as to the manner of said regulation, he may appeal to a board of arbitration to consist of three hydraulic engineers to be appointed by a judge of the Supreme Judicial Court, the cost of said arbitration to be paid by the party requesting the arbitration.

The term reservoir, as used in this section, shall mean any storage basin having an available capacity of over 200 000 000 cubic feet, provided, however, that this limiting capacity shall not apply to any reservoir created on any great pond of the state.

Section 2. The term "concession" as used in this act shall mean and embrace every certificate issued by the state through the State Water Storage Commission in its approval of any plans and statements filed with it in accordance with the provisions of section 6 of this act, or of every certificate issued by the said commission as provided for in sections 7, 8, and 14 of this act.

Section 3. Every person, firm, or corporation, their heirs, executors, administrators, successors, assigns, lessees, trustees, or receivers appointed by any court whatsoever, who accepts, takes and holds a concession for the erection and operation of a water storage reservoir under the provisions of this act, is hereby declared a public utility.

Section 4. The drainage districts created under the provisions of section one of this act shall be in charge of district superintendents who shall report to and receive their instructions from the chief engineer of the State Water Storage Commission. Said district superintendents shall be appointed by the State Water Storage Commission from lists of persons recommended by the water users, including the log-driving associations, the water power users and the dam and reservoir owners of the respective drainage districts. Provided, that one district superintendent may have charge of more than one drainage district.

Section 5. For the purpose of carrying out the provisions of this act, or for any other lawful purpose, the State Water Storage Commission, the chief engineer, or any other engineer, or other person appointed by said commission for that purpose, shall have free access to all parts of the buildings, structures or grounds utilized by the owner or owners of any concession granted under the terms of this act, and may take any measurements and observations, and may have access to and copy from, all books, accounts, plans and records of said owner or owners, as are necessary for the purposes of this act.

Section 6. Every person, firm, or corporation, before commencing the erection of a dam, or the enlargement of any existing dam, for the purpose of developing any water power in this state, or the creation or improvement of a water storage basin or reservoir for the purpose of controlling the waters of any of the great ponds or rivers of the state, shall file with the State Water Storage

Commission for its information and use, copies of plans for the construction of any such dam or storage basin or reservoir, and a statement giving the location, height and nature of the proposed dam and appurtenant structures and the estimated power to be developed thereby and also the name of the river, stream, lake, pond, or other body of water from which it is proposed to use water power, or on which it is proposed to store water, and as near as may be, the points on said river, stream, lake, pond, or other body of water, between which said water power or storage of water is proposed to be taken or used or developed, and such other information as said commission may require, and until said plans and statements are filed with and have received the approval of a majority of the members of said commission, and until a certificate to this effect has been issued, and the concession granted, it shall be unlawful to start construction on any such said dam or dams or appurtenant structures; and, furthermore, it shall be unlawful to change or modify any such plans or any designs until the changes and modifications have received the approval of a majority of the members of said commission, and until a certificate to this effect has been issued and the concession granted; provided, however, that the rejection of any plan or plans shall be on the ground of the inadequacy of the engineering features of the plans, unless a great pond or state land or public lot or lots are involved; and provided, further, that in case of the rejection of plan or plans on account of inadequacy of the engineering features, recourse may be had to a board of arbitration as provided for in section one. Every person, firm, or corporation shall, as soon as practicable, after this act takes effect, file similar plans, reports and estimates in relation to any dam or storage basin or reservoir then in process of construction by them.

Section 7. No certificate of incorporation, among the purposes of which are the development of water storage or water power in this state, shall be approved by the attorney-general unless said certificate is first filed with the State Water Storage Commission; nor unless said certificate of incorporation shall contain, in addition to the statements now required to be made, the name of the river, stream, lake, pond, or other body of water from which it is proposed to use water power, or on which it is proposed to store water, and, as near as may be, the points on said river, stream, lake, pond, or other body of water, between which said water power or storage of water is proposed to be taken or used or developed, and such other information as said commission may require; nor until a certificate to this effect has been issued by the State Water Storage Commission and the concession granted.

Section 8. No sale, assignment, disposition, transfer, or conveyance of the franchises, and all the property, real, personal, and

mixed, of any person or firm engaged in the development of water storage or water power in this state, or of any corporation heretofore or hereafter formed, for the development of water storage or water power in this state, to any other such corporation or to any person or firm, shall be valid until a certificate, prepared and duly executed by the president and secretary of the corporation so purchasing, under the seal of said corporation, or by such person or firm designating the river, stream, lake, pond, or other body of water, and as near as may be, the points on the said river, stream, lake, pond, or other body of water, between which said water power or storage of water is proposed to be taken, or used, or developed, and such other information as the State Water Storage Commission may require, has been filed with the said commission; nor until a certificate to this effect has been issued by the State Water Storage Commission and the concession granted.

Section 9. All the property, rights, and franchises within the state of Maine acquired, erected, owned, held or controlled by any corporation, hereafter organized for the development of water storage in this state, or its successors or assigns, at any time after this act shall take effect, under and by virtue of the terms thereof, shall be subject to be taken over by, and become the property of the state of Maine, whenever said state shall determine by appropriate legislation that the public interests require the same to be done. Upon the taking effect of such legislation, the ownership of said property, rights, and franchises shall immediately be transferred to, and vested in, said state of Maine, and said state shall pay to the owner or owners thereof, the fair value of all the same, excepting, however, such franchises and rights as are conferred upon any said corporations under and by virtue of the provisions of any legislative act or acts or any special charter or charters owned or controlled by any said corporations, which said franchises and rights shall be wholly excluded in the determination of the amount to be paid to any said corporations by said state of Maine. Provided, that should the state proceed under this section, it shall assume the contracts of the company or companies whose property it takes.

The fair value of the property, rights, and franchises so taken by the state of Maine, subject to the exceptions hereinbefore mentioned, shall be determined by agreement between any said corporations and such officers and agents of said state as shall be thereunto authorized to act in its behalf by the act which authorizes the taking of said property, rights, and franchises; and such agreement failing within six months after said act takes effect, then by such fair and impartial tribunal and under such provisions as to the manner of procedure and for full hearing of

parties and payment of damages awarded as shall be provided in said act.

Section 10. Any concession granted under the terms of this act shall terminate within a period of from twenty-five to sixty years from the date of approval of the concession, unless earlier taken over by the state under the provisions of section seven of this act, the period of termination being determined by the State Water Storage Commission at the time of their approval of the concession in question.

At the expiration or earlier termination of any concession, all rights under the concession shall revert to and become the property of the state upon the state making just compensation for the physical property to the person, firm, or corporation, in accordance with the provisions of section nine of this act; provided, however, that the State Water Storage Commission may extend the concession under the terms of this act, and if the holder of any such concession, during the term thereof, has complied with all the laws and regulations, said holder shall have a preference right to renew the concession on reasonable terms laid down by the commission, and in case said holder declines to accept the new concession, the State Water Storage Commission shall elect whether the state shall take over the physical property in accordance with the provisions of section nine of this act, or whether it shall grant another concession, in which case the original concessioner shall have the privilege of selling or disposing of his buildings and machinery to his successor in concession.

Section 11. Every person, firm, or corporation, except municipal corporations, engaged in the development of water power, shall, in lieu of all other forms of state taxation, pay to the state of Maine an annual tax on or before the second day of January of each year, of not less than one half of one per cent. or not more than five per cent. of the gross annual income of said person, firm, or corporation, or if the power is used by the owner and not sold, the annual tax shall be at the above mentioned rates but based on an appraisal of the value of said power as determined by the State Water Storage Commission; provided, that, in the case of a disagreement on said appraisal, recourse may be had to a board of arbitration as provided for in section one. The rate of taxation may be on a sliding scale but shall be fixed by the State Water Storage Commission. The said commission may also determine at what future dates the rates may be readjusted within the above limits.

Section 12. If any person, firm, or corporation shall fail to pay the annual franchise tax as provided for in section ten of this act within ninety days after the same is due and payable, the state shall have a preference lien therefor, prior to all other liens or

claims, upon all the property of said person, firm, or corporation and upon notice from the State Water Storage Commission the attorney-general shall proceed to enforce the lien and collect any unpaid fees in the same manner as other liens on property are enforced.

Section 13. It shall be the duty of every person, firm, or corporation granted a concession under the terms of this act, to keep such accounts and records as may be required by the State Water Storage Commission, and to report the same together with such other information over affidavit, as may be required by said commission on suitable blanks to be furnished by the commission and at such times and dates as may be specified by said commission. The failure upon the part of any said person, firm, or corporation to comply with the provisions of this section shall be deemed a substantial non-compliance with the provisions of this act, and of the concession granted to such person, firm or corporation.

Section 14. Whenever the owner or owners of any dam or dams used for the purpose of developing water power in this state, or the creation or improvement of any water storage basin or reservoir, find that, for the purpose of creating, acquiring, maintaining and operating their dam or dams and other works, it is necessary to overflow certain lands, said owner or owners shall apply to the State Water Storage Commission for the right to take and use any lands, riparian or other rights, that may be required for the creation, construction and maintenance of any and all reservoirs, dams, and other structures and improvements that may be necessary to accomplish the purposes of their charter, and after the approval of the majority of the members of the State Water Storage Commission has been given and a certificate has been issued stating that said commission does approve the taking or overflow for the particular purpose stated, then and not until then, the said owner or owners of the said dam or dams may proceed to exercise the right of eminent domain for the particular purposes stated in accordance with the provisions of Chapter 94 of the Revised Statutes and laws amendatory and supplementary thereto; provided, however, that the rejection of the application for the said taking or overflow shall be on the ground of the inadequacy of the engineering features of the plans, unless a great pond or state land or public lot or lots are involved; and provided, further, that in the case of the rejection of the said application for the said taking or overflow on the ground of the inadequacy of the engineering features, recourse may be had to a board of arbitration as provided for in section one.

Section 15. Whenever any person, firm or corporation contemplating the erection or the enlargement of any dam or dams for the purpose of developing water power in this state, or the creation

or improvement of any water storage basin or reservoir, find, that for the purpose of creating, acquiring, maintaining, and operating their dam or dams and other works, it is necessary to overflow any great pond or take or overflow any public lot, lots or state lands, said owner or owners shall apply to the State Water Storage Commission for such rights of taking or overflow.

The said commission may make an engineering investigation of the desirability or necessity of such taking or overflow, and report to the next legislature the results of its investigations together with its recommendations for or against the said taking or overflow and include in said report its estimates of damages if any state land or public lot or lots are involved.

Section 16. In case the owner or owners of any dam or dams used for the purpose of developing water power in this state, or the creation or improvement of any water storage basin or reservoir, shall create, improve or increase storage on any great pond or any reservoir created for the storage of water, said owner or owners shall be entitled to be reimbursed by the treasurer of the state of Maine on warrants drawn and approved by the Governor with the advice and consent of the Council for all reasonable costs of operation and maintenance and a net annual return for twenty years of five per cent. on the cash actually spent in creating, improving, or increasing said storage. All owners or lessees of each and every improved water power operated for over eight months in the year, located below said reservoir or reservoirs or storage basin or basins and benefited thereby, shall pay into the treasury of the state of Maine his or their proportionate share of all the reasonable costs of operation and maintenance and a net annual return for twenty years of five per cent. on the cash actually spent in creating, improving, or increasing said storage, including the cost to the state of the supervision and regulation of said reservoir or reservoirs or storage basin or basins. The apportionment of the said reasonable costs and the said annual return of five per cent. shall be made by the State Water Storage Commission in proportion to the resulting benefits.

If any said owner or lessee of any improved and operated water power fail to pay his or their proportionate share of all the reasonable costs of operation and maintenance and a net annual return of five per cent. on the cash actually spent in creating, improving, or increasing storage from which they are benefited, within ninety days after the same is due and payable, the state shall have a preference lien therefor, prior to other liens or claims, except for taxes, upon all the property of said owner or lessee, and upon notice from the State Water Storage Commission, the attorney-general shall proceed to enforce the lien and collect any unpaid fees in the same manner as other liens on property are enforced.

Section 17. Every person, firm, or corporation engaged in the generation of electric current in this state shall install, within three months of the date of approval of this act, suitable and accurate meters and other instruments approved by the State Water Storage Commission, adequate for the measurement of the electric energy generated, and such person, firm, or corporation shall keep accurate and sufficient records showing the quantity of electric energy generated each day in the year and the number of hours run per day, and report same to the State Water Storage Commission on blanks prescribed by, and at such time as shall be determined by, said commission; provided, that in case any person, firm, or corporation engaged in the generation of electric current in this state fails to install suitable and accurate meters and other instruments within the time above specified, such person, firm, or corporation shall be subject to a penalty of $10 per day for each and every day over the above limit of three months, during which they have not made the necessary installation, said penalty or penalties to be paid into the treasury of the state of Maine; and provided further, that the State Water Storage Commission may extend the time before the penalty attaches in which to install the suitable and accurate meters and other instruments.

Section 18. Any party, feeling himself aggrieved by any act done, or failure to act, or by any findings or rulings made by the State Water Storage Commission, subsequent to the granting and acceptance of the concession as provided in this act, shall have the right to appeal to the Supreme Judicial Court in the county in which its dam is located, or at its option in Kennebec County.

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DISCUSSION.

Mr. Morris Knowles.* I have been interested in the change of view between what has been and what is proposed, in the new Conservation Act now being recommended in the state of California. It is now planned to place in the control of one body of five men versed in various classes of conservation, the duties and authority formerly residing in the Board of Forestry, Redwood Park Commission, Fish and Game Commission, Water Commission, and present Conservation Commission. The duties of these boards are to be conferred upon the new board with broader powers and privileges.

I desire, however, to speak particularly at this time of the necessity of some legislation in our states that will promote development of the water resources by private capital under reasonable regulation; so as to prevent exploitation and secure at the same time to the people such desirable benefits as come from regulation of stream-flow; the prevention of floods, dilution of pollution, better navigable stages, as well as others that will be obtained when we have state-wide regulation. This is the reason for the formation of the new organization in our state, called the Water Conservation Association of Pennsylvania, of which I have the honor to be president.

A group of capitalists and publicists, realizing the good to come from a common meeting ground to discuss these problems of vital importance to investors and the people, met to consider this question, and formed this unique organization in which many minds are represented upon the executive committee. It is planned to conduct a state-wide campaign of publicity and education; with the expectation of thus securing, by coöperative effort, certain legislation at the next session of the state legislature which will bring order out of chaos as to water laws (the right of eminent domain as to appropriation of water, under-lands, and rights of ways does not exist with companies formed since 1905), to attract capital to develop the state's water resources; — but, at the same time, reserve to some tribunal the review of the exercise of the right of eminent domain and not only supervise the design and

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construction of dams (as recommended by Mr. Chandler and Professor McKibben), but also the operation thereof, so as to prevent floods and secure regulation of stream-flow.

I have been much impressed with Mr. Babb's well-thought-out plan of procedure, as explained in his paper; but, perhaps because our customs may not be the same as in Maine or because we have not yet given so much consideration to the subject, some few of the provisions suggested seem to be, upon first reading, either conflicting or unnecessary, in the light of the modern development of the true idea of conservation. While the speaker wishes to express the strongest agreement with certain parts of the paper, he would like to ask, without any spirit of antagonistic criticism, but with the attitude of inquiry, questions about certain clauses.

Section 1. The provisions in the second paragraph of this section — relating to the control over the uses of water, that the greatest benefits shall be derived therefrom for all users — are excellent and directly in line with the principles advocated by the Pittsburgh Flood Commission, and they have recently been incorporated in two charters lately granted by the Water Supply Commission of the state of Pennsylvania.

Section 4. The provision herein stated that district superintendents shall be appointed from lists of persons, recommended by various water users, — such as log-driving associations, reservoir, dam, and power owners, — is a recognition of the point of view, not to say the rights, of the practical operator, which is only too often forgotten in such legislation.

Section 6. The provision that copies of plans, showing design and location and nature of proposed work and structures, shall be filed and then "receive the approval of the majority of the members of the said commission" is just what Professor McKibben has been advocating and is much better than the Connecticut system, where any one member of the commission may approve.

Section 9. The arrangement for a purchase by the state, herein mentioned, is extremely vague, and it is difficult to imagine what may be meant by "*such franchises and rights,*" other than those conferred by the acts of the legislature, and the condition seems

still more complicated by the statement in the second paragraph of Section 10, that just compensation shall be made for the "*physical property.*" If it is intended to mean by these terms that there shall not be any value, other than that of the physical property, as properly determined, allowing nothing for "development, expense," or "business value," it hardly seems that the provisions are fair to the investor of capital, which must stand early losses.

Section 10. If there be the right of purchase, as provided in Section 9, is there any need of the concession terminating at the end of twenty-five to sixty years, especially if there be a provision for the regulation of rates to be charged to the public? Earlier in the act, in Section 3, such business is declared a "*Public Utility,*" and it may be that some public utility law, not herein mentioned, provides for such rate regulation, but, in the absence of definite statement, we are not sure about this and it will be well if it can be cleared up. Does not the last provision of this same section permit of indefiniteness of construction and also permit a chance of a "hold-up" of the company whose franchise is expiring, or force it to sell out at a sacrifice to the company which secures the new franchise?

Section 11. An interesting query is raised with regard to this section, that if rates should be regulated, why should it be necessary to charge a tax upon the power company, either in proportion to the power developed or as a percentage of the gross receipts? With proper state regulation, such expense of course must be borne by the rate payer, but assuming it to be fair, is there any reason why municipal corporations which develop power should not be similarly taxed? Are they not doing a commercial and not a municipal business in such a case?

Section 14. The provision for a review of the exercises of the right of eminent domain is directly in line with what is now proposed in Pennsylvania, but the more cumbersome provisions of Section 15, which means going to the legislature for action, can hardly be as satisfactory.

Section 16. The provisions herein listed are much like the arrangements of the *Genossenschaft* of Europe, namely, "Associations not for profit," which bring about the coöperative effort of Capital, State, and People, in securing profits from investments

and great benefits. It will be very desirable if we secure some such legislation in this country.

There was one additional thing that Mr. Babb mentioned in closing which seems to me important, namely, that some of the penalties or punishments were not included in the bill with the idea that if they were perhaps the bill would not pass. The oft-repeated statement occurred to me in that connection, that it is not so much the punishment or severity of the punishment which is necessary as it is the certainty. I think in matters of this sort definiteness as to what is required is far better than indefiniteness, although it may have been thought to have been necessary to do some trading in order to get the thing through the legislature. I think it is extremely unfortunate, however, if they thought it necessary to do anything which might be a compromise rather than to have something which would be definite and which everybody could understand.

Mr. P. P. Wells.* I have listened to Mr. Babb's paper with very great interest as an evidence that the conservation movement has taken root in New England. Having been connected with it here in Washington for the past five or six years I am much interested in seeing it taken up in the section from which I come. I was glad to note, in looking over Mr. Babb's paper, the forethought with which the founders of the state of Maine and the state of Massachusetts had retained to the state the control of the "great ponds." It gives the state a grip on the situation that is lacking in southern New England so far as I know; and, also, I suppose there are still considerable holdings of public land in the state of Maine, which we have not in southern New England, and which again give the state jurisdiction like the jurisdiction which the Federal Government has in the West, where it is a landowner to such a large extent throughout the mountain region.

I particularly noted two or three matters mentioned in Mr. Babb's paper. One of them is the matter of the time limit of the franchise, which Mr. Knowles called attention to. Theoretically I agree with Mr. Knowles's suggestion that if you have competent regulation and competent provision for the public taking over

*Chief law officer, Department of the Interior.

by buying out any private enterprise of this kind on fair terms, no time limit is necessary. But such provisions are rather uncommon. I believe the state of Wisconsin in its public utility policy goes upon the principle that franchises are indeterminate, and that the state may purchase at a valuation based primarily upon the construction cost, or replacement cost, with due allowance for promotion costs and other legitimate expenses. I think in the present state of development of public opinion in most of our commonwealths the time limit is a valuable element in any legislation of this kind, because it serves to protect the public until such time as a more perfect system of regulation can be worked out after the Wisconsin system, and because it will automatically bring up to the public at some future day the question as to what the public interest demands with respect to the expiring franchises.

I was also particularly interested in the matter of the provisions in this proposed Maine bill for forcing contribution to the cost of storage. That matter has come under my attention a good deal with respect to operations where the Federal Government was concerned. We have had cases in the West where on certain streams storage was to be put in by one company and others would get the advantage of it, and it is perfectly obvious that equity demands a contribution on the part of the companies who get the advantage of the investment, who at present do not contribute to it.

In regard to state purchase, — I have already alluded to the right of the state to purchase, — it seems to me that that is a very valuble suggestion — perhaps not worked out fully in detail, and it is probably impossible to so work it out at this time.

I have heard what Mr. Knowles has said about the regulation of prices and of service by the state, and it seems to me that that is one of the most important things for the state to do at this time, — that where the state has jurisdiction because state assistance is necessary in the way of corporate charters, or in the way of the use of state lands or the use of these great ponds or otherwise, under those circumstances there should be a strict regulation by the state in the public interest of the service to be rendered and the prices to be charged.

I have given some attention to the control of water power since the year 1907, in several different capacities, so far as the

Federal Government is concerned, — first, in connection with the Forest Service, of which I was the law officer until 1909; and contemporaneously with that giving informal advice and assistance to the Power Committee of the Inland Waterways Commission, which was created by President Roosevelt in 1907; and then for more than a year as counsel for the National Conservation Association; and for the past year in the office of the Secretary of the Interior, so perhaps it would not be out of the way for me to briefly state here the water-power control problem from the point of view of the Federal Government.

The Federal Government has or claims jurisdiction over water power from two different sources: In the first place, as a landowner. Throughout the West, the Rocky Mountain and Pacific states, the United States is the principal landowner, and has in its ownership a large number of power sites. Pretty much all the undeveloped water power out there is in federal ownership. As landowner, the consent of the United States must be secured to any water-power development there. Some of that land is in National Forests, and the rest of it is for this purpose under the jurisdiction of the Secretary of the Interior. In either case the water-power development is regulated under an act passed February 15, 1901, which compels a person wishing to develop a power to come to the Federal Government and get a permit from the Secretary of Agriculture if it is in a national forest, or from the Secretary of the Interior if it is outside such limits. Now, until the administration of the national forests was transferred to the Secretary of Agriculture, by an act passed February 1, 1905, there was no attempt at what may be fairly called public regulation under this statute. When the jurisdiction was transferred, the Forest Service took up the problem of water-power control and worked it over with the companies, with the applicants for permits, and adopted regulations which were changed with experience, as necessity showed was expedient, until the result was regulations which are embodied in what is called the "Use Book" of the Forest Service concerning water power, and which can be procured by application to the forester, — a series of comprehensive regulations on the subject.

The Interior Department has never until very recently attempted

any thorough-going regulation under that statute, but on the 24th of last month regulations were issued by the Secretary of the Interior, which are very much like the Forest Service regulations, and which do attempt regulation of this character. I would say briefly about these that they provide for a rental charge to the government for the use of government land and for a time limit of fifty years, or not more than fifty years, for the privilege. In that connection I want to say that the great defect of this statute is that every privilege given by it is expressly by the statute made revocable by the head of the department, and that for the past five years the administrative branch of the government has been recommending legislation to allow the issuance of permits which would be irrevocable for fifty years. We have not succeeded in getting that legislation, which is so essential to safety for the capitalists who invest; but in these regulations both departments have gone to the limit of their powers by indicating, as far as they can, that the intent is that the permit shall remain in force for fifty years. But of course no secretary can bind his successor in that behalf, in view of the express language of the statute. Then in these recent regulations by the Secretary of the Interior there is a provision for purchase by the Federal Government, by the state, or by any municipality, at a fair value, with a bonus of three fourths of one per cent. for every year of the unexpired term. That is, if there were twelve years of the fifty yet to run, we would ascertain the fair physical value of the works and add nine per cent., and the public could buy them at that rate. Also by these regulations the grantee is bound to submit to reasonable regulation of prices and service by the duly constituted authority of the state in which the service is rendered. Also the rentals may be readjusted by the department at the end of ten-year periods. I think perhaps it will be interesting to read that particular provision:

"At any time not less than ten years after the issuance of final permit and after the last revision of rates of rental charge thereunder, the Secretary may review such rates and impose such new rates as he may decide to be reasonable and proper; *Provided*, that such rates shall not be so increased as to reduce the margin of income from the project over estimated and proper expenses (including reasonable allowance for repairs and renewals) to an

amount which, in view of all the circumstances (including fair promotion costs and working capital) and risks of the enterprise (including obsolescence), is unreasonably small, but the burden of proving such unreasonableness shall rest upon the permittee."

Now, under the terms of this statute it is impossible to give jurisdiction to the courts in such a matter. These questions as to what is reasonable and proper must, therefore, be decided by the Secretary. The desirable arrangement would be to have the decisions as to what is fair rental, and the reasonableness of these various items, passed upon by the courts, and it is hoped that we will get legislation from Congress which will authorize such an arrangement.

There is another basis for the federal policy of water-power control which I will briefly mention, and that exists where navigable streams are concerned. I have scrutinized, I think, every bill introduced in Congress since the fall of 1907 granting licenses for the damming of navigable streams. There has been a legal contest waged around the question whether the Federal Government has any right to attempt any control in such cases, but after a good deal of hesitation and difference of opinion on the part of the government officers, the policy has been established by this administration — and I may say it was established by the preceding administration — of refusing such a license without express provision for regulation of this kind, — the requirement of a rental charge and provisions to protect the consumers of the power. In pursuance of that policy, bills granting such licenses, which did not contain those requirements provisions, have been vetoed during the past session of Congress.

Prof. Philander Betts.* This suggested bill apparently assumes the enactment shortly of a bill providing for a Public Utilities Commission. In connection with the definition of a public utility given in Section 3 of this suggested act, I want to state the experience of the New Jersey Commission. A public utility in New Jersey is defined by the Public Utilities Act in such a way that municipalities or municipal corporations are not included. Complaints have been made to the board at various times regarding the service furnished by municipalities, and the

*Chief Engineer of the New Jersey Public Utilities Commission.

board has been powerless to entertain complaints of that kind. It seems absurd that in exercising regulation over public utilities such regulation can only extend to privately owned utilities, — utilities operated by means of capital furnished by private individuals. It seems to me that such regulation, if regulation is justified, and to-day we consider that it is, is justified because of the character of the services themselves. These services are public utilities, and therefore should be subject to regulation. The Wisconsin law clearly recognizes this by making no difference as to who operates the public utility, whether it is operated by a private corporation or by a municipal corporation. I would make the suggestion, therefore, that this proposed bill ought to be amended, if possible, so as to include public utilities, no matter who operates them.

Another suggestion is in regard to the clause limiting the term of the franchise. A good deal has been said in the last few years regarding the terms of franchises. In years gone by, many franchises and charters had no limits, and the tendency at the present time with municipal corporations is to go to the other extreme and to limit the term in which the franchise may be exercised to a period too short to justify a company in making the investment to furnish a proper service. I would commend for consideration by every one interested in operation of plants, as well as by those interested in the enactment of public utility laws, the provision of the Wisconsin law for an intermediate permit, or for a permit unlimited during good behavior. All franchises for a definite term ought to include some provision for the period following the termination of the franchise. If this is not done, and there is any uncertainty with regard to the ability to obtain a renewal of the franchise, the temptation on the part of the company will be to stint the service and to withhold the expenditures of money required in making extensions and in keeping the service itself up to the point of adequacy.

Mr. M. O. Leighton.* Mr. Babb in his paper has admirably covered a difficult field. He has quoted a large number of court decisions relative to water rights, and they are very instructive. They are instructive largely because they reveal many difficulties

*Chief Hydrographer, United States Geological Survey.

and absurdities. I shall surely be criticised when I state that the greater part of our difficulties in the eastern part of this country arises from the fact that we are governed by one of the most abominable of our abominably revered institutions, namely, the riparian law. When we have jockeyed about to our satisfaction and have become convinced that water is the property of the whole people and must rationally be devoted to the highest use without regard to precedent, we will abrogate the riparian law and the entire principle underlying it. It will be very difficult to accomplish such a purpose because of our conservatism with reference to changes in fundamental law.

Our friends in the legal profession are always prone to regard the law as the end rather than the means. Their habits of mind are not unlike that of the miser who is gloating over his gold. His attention is fixed on the gold, not as a medium of exchange, but as a mere substance, the presence of which gives him satisfaction. In like manner we are prone to consider the law, not as a means to an end, not as a servant created to assist us in realizing our needs and desires in the wisest way, but as a final and unchangeable institution, to which we must bow and worship. Of course, I am now referring to fundamental law which lies at the basis of all our jurisprudence. I am unable to understand why we should be expected to direct all our constructive procedure according to the precedents established by the law of an earlier day and at the same time be considered unprogressive should we endeavor to utilize old methods of transportation in the conduct of modern business.

My point will be illustrated by quoting from one court decision cited by Mr. Babb. The case was evidently one in which complaint was made that a dam obstructed the use of a river for log-driving purposes. The judge instructed the jury that if the river in its natural state was capable of being useful for floating boats, logs, etc., for purposes of trade or agriculture, the plaintiff was entitled to recover however long the dam of the defendant might have stood and notwithstanding his use of the river had been open, notorious, and adverse, and although no logs had ever been floated over the falls where the dam now is. (Knox *v.* Challoner, 42 Maine, 150.) The merits of this particular case are of no

immediate importance, but I would like to call your attention to the fact that here is a decision — and there are many others — which establishes the principle that the prior use of this river must be for navigation purposes, or log-driving purposes, irrespective of the facts and merits in the case. No matter how detrimental this prescribed prior right might be to the community, no matter how many people might be injured, or how insignificant was the log-driving use, that use is prior to all others merely because under the conditions which prevailed in an earlier day, navigation was considered paramount. Why should this be so?

Another illustration may be given. In those cases in which adverse decision has been made on the principle of compensation in kind, does it not appear absurd that a riparian owner can enforce his right to have a river flow by his property in its natural condition and be entitled to recover damages even though a corrected condition — brought about, for example by the construction of a reservoir — makes the river more valuable to him than it was before? In the state of California a great fertile valley is throttled in its development because of just such a decision.

Having observed closely the principle of prior appropriation based on beneficial use which prevails in the most of our western states, I cannot fail to recognize its superiority. It may be instructive to consider one of the state's laws based on this principle. Let us choose for convenience the law of Oregon. The act providing for the granting of franchises of water power begins as follows:

"All water within the state from all sources of water supply belong to the public."

Section 45 of the Oregon water law reads as follows:

"*Application.* — Any person, association, or corporation hereafter intending to acquire the right to the beneficial use of any waters shall, before commencing the construction, enlargement, or extension of any ditch, canal, or other distributing or controlling works, or performing any work in connection with said construction, or proposed appropriation, make an application to the state engineer for a permit to make such appropriation. Any person who shall wilfully divert or use water to the detriment of others without compliance with law shall be deemed guilty of a mis-

demeanor. The possession or use of water, except when a right of use is acquired in accordance with law, shall be *prima facie* evidence of the guilt of the person using it."

The Oregon law goes further. Should you have what would be considered in the East a riparian right and desire to develop a water-power privilege existing on your own land, and should you in conformity with the Oregon law apply for a permit to use the water and be granted the same, you cannot congratulate yourself that you have a permanent right. Section 53 of the Oregon law reads:

"*Water-right Certificate.* — Upon it being made to appear to the satisfaction of the board of control that any appropriation has been perfected in accordance with the provisions of this act, it shall be the duty of the board of control to issue to the applicant a certificate of the same character as that described in Section 25. Said certificate shall be recorded and transmitted to the applicant, as provided in said section. Certificates issued for rights to the use of water for power development acquired under the provisions of this act shall limit the right or franchise to a period of forty years from date of application, subject to a preference right of renewal under the laws existing at the date of expiration of such franchise or right."

The appropriation of water under such a statute is based entirely on beneficial use. No right is granted for a larger amount of water than can be beneficially used for the purpose for which it is desired. With such a fundamental principle established in the East, it would be impossible to sustain a water right which was not conducive to the best interests of the people as a whole; it would be impossible to use the common law as a basis and pretext for petty blackmail as is now done, the power developer and investor would benefit by the assurance of stability given under the law, and the people as a whole would be assured of maximum benefits resulting from the wisest use of their water resources. Such a change will not probably be made for several generations, but it is sure to prevail eventually.

Mr. Cyrus C. Babb (*by letter*). The writer considers himself fortunate that he was able to be present at the conference, as a number of valuable suggestions were received from the various

papers and their discussion. Consideration has been given from time to time to the several points raised by Mr. Knowles. In fact, most of the provisions of the entire bill have been rewritten a number of times. Section 9 is the usual form now inserted in legislative charters for large water storage or power companies, except modified to fit general conditions. This section, as well as the second paragraph in the next section, has been troublesome to write. It is not intended to exclude development expense, but to pay the "fair value," excluding, however, franchise value, which is used in its narrow meaning, that is, the intangible value of the franchise or right granted by the legislature. It is the people that grant the franchise, and it is believed that when they purchase the plant, they should not pay for a right that they granted in the first place.

The term "physical property" in the second paragraph of Section 10 was an error. It should have been the fair value of the property with the franchise value excluded. Probably the last provision can be made clearer. The intent is to give the holder of the original concession the preference right to renew. If he declines, allow the state to purchase, but if the state is not ready for such action, provide for its purchase by a third party.

The writer has had under consideration the "indeterminate franchise" as recognized by the Wisconsin Commission, but he wishes to understand the practical workings of it before adoption. At the present moment a limited franchise or concession seems to safeguard better the public's interest. Sixty years hence, our idea of the value of water power may be changed from what it is now.

Section 11: The tax on water power is a special tax from which it is believed the state should receive a revenue. It will not be so heavy — varying, on a valuation of $20 per horse-power, from 10 c. to $1.00 per horse-power per year — that it will be a burden on the people who derive a benefit from its development. Those people who do not receive the benefit, say, of electric power or electric lights, will not be taxed for it.

Without question, eventually it will be best to bring municipal plants under the operation of this section.

Section 15: The provisions of this section were a compromise.

The state of Maine jealously guards the granting of charters for developing its great ponds especially, and with a new and radical measure of this sort it was thought best not to insist that the Commission be given the power to grant such charters as the first draft of the section contemplated. It will be a long step in advance if persons or corporations desiring to create storage on a great pond be compelled first to apply to the Commission, who may then make an engineering investigation of same and report to the next legislature. It is probable that nearly all important measures that pass state legislatures or even the United States Congress are compromises to a certain extent. In the case of a meritorious measure it is generally possible to eventually improve it by subsequent legislation.