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TB 62 (1929)

MUTUAL IRRIGATION COMPANIES

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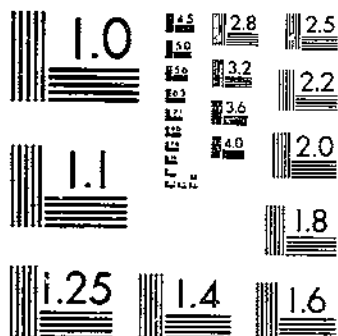
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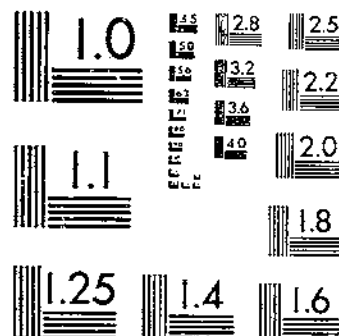
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UNITED STATES DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C.

MUTUAL IRRIGATION COMPANIES

By WELLS A. HUTCHINS

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INTRODUCTION

This bulletin presents the results of an inquiry into the operation of mutual, or cooperative, irrigation companies in the several Western States.¹ The mutual company has an important influence upon the economic welfare of western agriculture, for it is the dominant

¹ C. E. Tait, senior irrigation engineer, who died in 1923, kept in close touch with the activities of mutual companies in southern California for some years and prepared copious notes and assembled other data in anticipation of writing a bulletin. Free use has been made of these notes and data in completing the work in southern California and as a guide in extending the work to include the entire West. Collection of data relative to mutual companies in southern California was made largely in cooperation with the Department of Public Works of the State of California. Use has been made of schedules of irrigation enterprises procured throughout the West under a cooperative arrangement between the Bureau of Public Roads (through the irrigation subdivision then in the Office of Experiment Stations) and the Bureau of the Census in connection with the irrigation census of 1910.

type of operating organization in Colorado, Utah, and southern California (aside from Colorado River areas); is prominent in portions of Montana, Wyoming, Idaho, and Oregon; and one phase is widespread in New Mexico.² Its value in large-scale irrigation financing has been limited, principally, by the attitude of the bond market, which has generally looked upon the irrigation district with greater favor where million-dollar programs were involved; but where heavy financing is not necessary, as is the case in many hundreds of irrigation communities, the usefulness of the mutual company in the field of irrigation administration is unsurpassed by that of any other type of organization yet devised. Nevertheless, the mutual company has been little advertised, and its possibilities are not widely known or appreciated. This bulletin, therefore, has been prepared for the purpose of making known to prospective organizers of irrigation projects the advantages and limitations of such organization and methods by which it may be formed and for making available to officers and water users of existing companies a discussion of the more important features of internal administration and finance as developed by the experience of a large number of such companies in the various Western States.

CONCLUSIONS AS TO THE USEFULNESS OF MUTUAL IRRIGATION COMPANIES

OPERATION

The incorporated mutual company is admirably adapted to the operation of an irrigation system by the water users, and this is its outstanding characteristic because the stockholders and water users are identical. The mutual company is used with equal success on projects covering 200 acres or 200,000 acres. The organization must conform to requirements of the State corporation law, but is sufficiently flexible to meet most conditions encountered in irrigation operation and maintenance. The management can be as direct as the stockholders care to make it. Of particular practical value are the simplicity and speed with which remedies against delinquent stockholders may be enforced. No matter what agency was employed originally in financing and constructing the irrigation system, it may be operated efficiently as a mutual company. This applies particularly to systems built in connection with the subdivision and sale of land, or as commercial or public-utility enterprises, or developed by consolidation of originally independent units, or financed by districts or other organizations and later refinanced.

Unincorporated associations are suitable only under exceptionally favorable circumstances and are not to be recommended. For satisfactory operation year in and year out, irrespective of changes in physical conditions or in membership of water users, the incorporated company is far preferable. The added costs incident to incorporation are of small consequence in comparison with the advantages received.

² The census of 1910 (11) showed the area irrigated by cooperative enterprises to have been 6,581,400 acres, or 34.3 per cent of the total, exceeded only by the area irrigated by individual and partnership enterprises; and the capital invested to have been \$183,041,500, or 26.2 per cent of the total, which then exceeded the investment in any other class.

FINANCING SUPPLEMENTAL DEVELOPMENT

The incorporated mutual company is well adapted to financing supplemental development of an irrigation community—that is, reconstruction, additions, extensions, and improvements to the irrigation works—and acquisition of existing works, particularly where the money can be raised locally, as through the sale of additional stock, stock assessments, or bank loans. Financing too great for local resources and therefore dependent upon disposal of bonds, while confined to relatively narrow markets, likewise is being accomplished from time to time in those sections of the country where mutual companies serve well-developed communities and have built up a reputation as a class. Large-scale financing, however, depends upon wider markets than are usually accessible to the mutual company, so that the mutual company at the present time is less suited for such work than the irrigation district.

FINANCING ORIGINAL CONSTRUCTION

The mutual company has been an important factor in community construction of irrigation systems and is still useful for such purpose where easy construction is possible, as well as in sections contiguous to already developed communities. It is not suited to financing large-scale construction in an undeveloped country through bond issues, since the market for mutual-company bonds is confined distinctly to those of developed communities. On the other hand, the mutual company is a useful medium for transferring to the settlers control of irrigation projects financed by land-development companies or other agencies, where the cost of construction is repaid through the purchase of stock or water rights by the settlers.

SUMMARY

The distinctive feature of the mutual irrigation company is service rendered at cost to the lands of members only. Water rights may be held by individual members or by the company. These companies are exempt from the Federal income tax and in several States from State taxation. They differ in many essential details from irrigation districts.

Organization fostered by outside promoters is usually in connection with land development or sale of water rights. Those initiated by water users are mainly for purchase of works, original construction usually on a small scale, consolidation of kindred enterprises, and operation of refinanced enterprises.

Methods of organizing include incorporation and ordinary contract between members. Incorporation involves some additional expense and so-called "red tape," but means greater safety and confers advantages of great practical importance such as the right to sell the stock of members for the nonpayment of assessments and the ability to make needed improvements in spite of the opposition of individuals or a minority group. Incorporation under the general incorporation laws of the State is the usual method and the one which has been found adequate under most situations.

Affairs of an incorporated mutual company are conducted under corporation laws, articles of incorporation, by-laws, and rules and regulations. Affairs of an unincorporated company are governed by the members' agreement and by such by-laws and rules as they may adopt.

Mutual companies are generally subject to the "blue sky laws." The functions of stockholders or members consist mainly of electing directors, making and amending by-laws, and authorizing all changes in the fundamental structure of the corporation. Management is the sole concern of the board of directors, and the execution of their operation and maintenance policies is delegated to some one who acts as superintendent.

Stock represents the company's capital, and is divided into shares distributed proportionately to the individual owners. The share represents also the right to receive water. Stock may be divided into classes. It usually has a par value, which is often much less than the current market value. Appurtenance of stock to land prevents concentration in the hands of nonwater users for speculative purposes, protects the company in building laterals to individual farms, makes for more efficient operation, and safeguards purchasers of land in the matter of water rights. It does not promote economy in the use of water, unless charges are made for the quantity used, and it sometimes leads to difficulties when there is delinquency in the payment of assessments.

Bonds of mutual companies are less numerous than those of irrigation districts, have been freer from defaults, and are restricted to narrower markets. Their legal security lies in mortgages on the irrigation works, while their soundness depends mainly upon the relation of irrigation to land values. Mutual-company bonds are handled mainly in Los Angeles, Spokane, and Denver, where they compare favorably with irrigation-district bonds.

Revenue is derived chiefly from stock assessments and from tolls charged to actual users of water. Collections are enforced by sale of delinquent stock or by refusal to deliver water to delinquents.

The mutual-company organization is used for lateral companies in most places where the main company does not deliver water to individuals. It is also used for separate reservoir construction and management. The problem of delivering water to domestic users who are not stockholders, without becoming a public utility, has been solved in southern California by the creation of a separate domestic company owning stock in the parent company.

CHARACTER OF MUTUAL COMPANIES

A mutual irrigation company is a private association of water users, either incorporated or unincorporated, formed to carry out one or more of the functions of providing water at cost for the use of stockholders or members only.

Its distinctive feature is its mutual or nonprofit character, which depends upon service at cost to members only. The character of many companies now recognized as mutual has not always been so clear-cut, in that they were originally incorporated for purposes which included selling, renting, and leasing water, with no restriction

upon delivery to other than stockholders, and in practice were not always careful to preserve a mutual status. The development of public-utility regulation by State agencies, and operation of the Federal income tax, have done much to clarify the situation.

WATER RIGHTS

Water rights in some mutual companies are held individually by the members and in others collectively by the company. Such diversity is due not only to variance of rules in the several States regarding titles to water rights but also to the fact that, even in those States which permit such titles to be vested in a purely distributing company, landowners in organizing mutual companies have not always deeded their water rights to the corporation. The question does not in any way affect the character of the organization but may arise in connection with delivery of water, ownership and transfer of shares of stock, and remedies against delinquent stockholders.³

FEDERAL TAXATION

"Mutual ditch or irrigation companies" are exempt from the Federal income tax, "but only if 85 per centum or more of the income consists of amounts collected from members for the sole purpose of meeting losses and expenses" (15, p. 40)⁴; and the exemption is not affected by making assessments in advance (16, art. 521).⁵ Early revenue laws had granted exemption only where all income was derived from amounts thus collected from members, but the present requirement of 85 per cent gives some leeway to a company which may be entirely mutual as to water service, yet have certain additional income, such as from oil-producing lands or power plants.

STATE TAXATION

In several States, including Colorado, Idaho, and Utah, the irrigation works of mutual companies are exempted from taxation so long as they are used for the service of their own members only. Some other States go further and exempt all irrigation works from taxation. In some States mutual corporations are relieved from paying the annual license tax assessed against corporations generally.

MUTUAL COMPANIES CONTRASTED WITH IRRIGATION DISTRICTS

Mutual companies and districts are the two outstanding types of community irrigation organization in the United States, and their fields of usefulness often overlap. A brief statement of their contrasting features follows.

The mutual company is private and voluntary, while the district is public and involuntary. The public feature of the district allows it to compel dissenting minorities to join, but requires adherence to

³ James S. Bennett is the author of an article in the *Southwestern Law Review* of December, 1917, entitled "Mutual Water Companies in California" (2), in which he analyzes many legal phases of such companies, including particularly water rights and public regulation.

⁴ Italic numbers in parenthesis refer to literature cited, p. 49.

⁵ For provisions on establishing exemption, see (16, art. 511).

public proceedings which render its formation much more cumbersome than that of a mutual corporation. The basis for participation in use of water delivered, and in repayment of obligations, is the ownership of stock in a mutual corporation, and the holding of title to land in a district.

Mutual-company bonds are based upon the assets of the corporation and are not a lien on the lands served unless expressly made so with the consent of participating landowners. District bonds are payable from the proceeds of assessments which, when levied, become liens upon the land. So far as the security for bonds is concerned, the difference in liens is more apparent than real. Land served by most mutual companies derives its greatest value from irrigation and is worth comparatively little when deprived of water. When an irrigation organization defaults, the creditors, to protect their investments, may be forced into the irrigation business if the organization is a mutual company, or the land business if it is an irrigation district. In the last analysis, both types of organization depend for success upon the proper agricultural use of the lands they serve.

Mutual-company assessments are levied against the outstanding capital stock, and district assessments against the land. Assessments in a company are therefore in direct proportion to the benefits received, while those in a district are proportioned to whatever scale the State law prescribes. A mutual company may time its dates of levy and collection to suit itself, while a district must conform to State law. A company may usually exercise discretion in the matter of forcing collections against worthy delinquents, but a district can show no mercy in such case. However, a company can advertise and sell delinquent stock in a few months' time, while a district frequently can not force a delinquent off the land for several years.

Management of a mutual company is controlled by the water users in direct proportion to their several interests. In case of a district, the landowners control in most States, while the general electors, irrespective of land holdings, control in several States. Management in a mutual company, on the whole, is more direct and consequently more elastic than that in a district and is more likely to be removed from local politics. The ordinary financial transactions of a mutual company are governed largely by the company's own rules, whereas those of a district must follow whatever procedure the State law provides. The irrigation district enjoys larger powers of condemnation than does a mutual company.

PURPOSES OF ORGANIZING

Mutual irrigation companies may either be organized by commercial enterprises or governmental agencies in furtherance of public reclamation, or initiated by the water users.

Promoters of commercial irrigation companies have seldom used the mutual-company organization for purely original financing. It has been used principally for the eventual operation of works by water users after the promoters have been reimbursed through sale of water rights or of land with water rights. The promoters' profits have usually been derived primarily from the enhanced value of the land when sold.

The usual procedure in case of land development is, briefly, as follows: The promotion or development company acquires a tract of land, builds an irrigation system, and organizes a mutual irrigation company in advance of land sales; then deeds the system to the mutual company, taking its entire capital stock in exchange, and transfers a share of stock with each acre of land sold. Ordinarily, under such a procedure, the control of the system passes to the settlers when a majority of the acreage has been sold, though if additional security seems necessary the development company may require proxies from the settlers to be surrendered when 75 per cent, or some other percentage, of the land has been sold, or as soon as the settlers have completed payment on their individual tracts. The land-development tracts involved in such cases have ordinarily not been large, varying usually from a few hundred acres to 15,000 acres, and in rare instances considerably more. This is a very important method of originating a mutual company, and some of the most prosperous examples, notably many in southern California, have started in this way.

Before the distinction between cooperative and commercial irrigation organizations came to be as clearly understood as it is to-day, many land-development schemes contemplated simply the sale of land with guaranty of water upon completion of the system. In such case the promoters eventually found themselves in possession of an irrigation system and an obligation to deliver water to land in which they had no further financial interest. The procedure outlined in the preceding paragraph avoids such a situation.

A method of originating a mutual irrigation company for the pecuniary benefit of persons having no land to sell consists of the construction of an irrigation system by the promoters and sale to individuals of rights to receive water from it. The contracts between construction companies and settlers provide that when the estimated capacity of the canal, or a certain percentage of it, shall have been sold, and a certain percentage of payments made, the system shall be conveyed, free and clear of encumbrances and without further consideration, to a mutual company which shall issue stock to the holders of original water rights in proportion to their holdings. This was at one time a favorite form of promotion in certain sections, but since it was predicated upon a quick turnover it was usually disastrous to the promoters and consequently is now of local importance only. Companies organized under the provisions of the Carey Act (5) involved the same general principle, but were governed by specific Federal and State legislation which permitted the sale of segregated public lands only to persons who had contracted to purchase water rights.

Where the organization is initiated by the water users the purpose may be for the operation of a lateral owned by a central organization, or, where owners of separate ditches have combined, for a unified plan of operation without disturbing the original ownerships. In such cases, to avoid complications over the construction of new works, it is better to consolidate ownership and management in the first place.

Sometimes when a private company originally contemplates perpetual management and sale or rental of water to consumers, circum-

stances arise which make a change to cooperative control advisable, such a change being optional with the users. In late years the trend in such case has swung to the irrigation district, primarily because extensive reconstruction or extension work has so frequently been included in the reorganization plans and district bonds have been easier to sell. The mutual company is well suited to such purpose, the advantage lying with the district at present, owing to the better market for the bonds of the latter type of organization.

Mutual companies are also organized for the construction of works, but such undertakings are seldom for large-scale developments, for the reason that the resources of the farmers are almost invariably small and outside capital is difficult to obtain. In the main, therefore, these enterprises must begin in a modest way, building extensions as the demand for water increases, and eventually reaching a point where they can borrow money for the more expensive improvements justified for a developed community.

The desirability of incorporating an irrigation enterprise increases with growth of the system; therefore companies organized for original construction generally find it advantageous to incorporate before undertaking to build extensions to serve additional water users, whether or not loans from outside sources are needed. The organization of a mutual company is useful in connection with the consolidation of a group of related irrigation enterprises, where the principal object is better management, as has been the case in several instances in Utah. Where betterments or enlargements are desired, the usefulness of the mutual company will usually be limited only by its ability to sell bonds.

Mutual companies are sometimes utilized in connection with financial reorganization of districts. For example, in the reorganization of the Otero irrigation district, Colorado, the new mutual company through a bond issue assumed the project indebtedness. In the case of the Montezuma Valley irrigation district, Colorado, the landowners were made individually responsible for the apportioned indebtedness through mortgages and the mutual company took over only the project operation. In certain early cases in southern California, mutual companies found it advisable to buy up outstanding district bonds in order to protect the community.

METHODS OF ORGANIZING

INCORPORATION UNDER GENERAL CORPORATION LAWS

Each State has a general incorporation law, under which mutual irrigation companies may be formed, and which often contains clauses relating specifically to irrigation companies. The corporation, therefore, is distinctly a creature of statute and has only those powers conferred by statute and by its articles of incorporation and such additional powers as are necessarily implied by its purposes of existence; whereas an unincorporated association exists by virtue of simple agreement of its members and may undertake any enterprise in which a single person may engage.

As such corporation is private and voluntary, no one can be compelled to join against his will. This fact is of particular importance in connection with the incorporation of an already established irriga-

tion community, for it means that water users opposed to incorporation can neither be forced to subscribe for stock nor be deprived of their right to receive water. Opposition of some of the water users does not prevent the others from incorporating; in which case the corporation and the "holdouts" own the irrigation system in common, the corporation acquiring no rights over the "holdouts" that its members did not possess before incorporating. Such situations have frequently developed. These people in many cases eventually find it advantageous to join the corporation, but until they do they are all too frequently a source of irritation and complications in canal management.

Upon incorporation of such an irrigation community, where the landowners hold the water rights in some tangible form, they frequently deed them to the corporation and receive shares of corporate stock in return; while in other cases—for example, where lands are riparian, or derive water rights from preexisting irrigation districts—there is no conveyance of water rights to the corporation. Such conveyances apparently would be of no effect in those jurisdictions in which water rights may be held only by landowners who put the water to beneficial use.

REASONS FOR INCORPORATING

The incorporated mutual company enjoys rights and privileges and broad powers of internal administration which give it a distinct advantage over the usual unincorporated company. Specifically, it is a definite business organization, simple in form, well understood, and enjoying functions many of which have been tested in the courts. It may enter into contracts, incur obligations, appear in court, and hold property, all in the corporate name—activities which when attempted by an ordinary irrigation association must be joined in by all members and are therefore rather cumbersome. These advantages ordinarily increase with the size of the corporation. But from the standpoint of a small irrigation company the outstanding advantages of incorporating are (1) to secure direct, speedy remedies against delinquent stockholders and (2) to be able to make needed improvements without hindrance by stubborn minorities. The right to sell shares of stock for nonpayment of assessments is a corporate privilege not shared by an unincorporated company. A corporation, within the limits of its charter, may incur expenditures for improvement work and assess all the stock to pay for it; whereas those in control of an unincorporated association can not compel the minority to contribute to the cost of improvements to which they have not legally assented. The fees and reports required by the State from corporations constitute a burden of small moment in comparison with the benefits conferred.

For these reasons the important mutual irrigation companies are almost invariably incorporated. In practice the unincorporated associations are usually confined to the simpler situations where things have gone smoothly enough for years and where there is no incentive to make any radical change; or where conditions are not satisfactory to all members, but where those enjoying particular advantages have been able, in one way or another, to block all movements to incorporate; or where a community is in the grip of inertia.

INCORPORATION AS COOPERATIVE ASSOCIATIONS

In addition to the general incorporation laws, the States have very generally provided legislation covering mutual or cooperative associations, setting up separate machinery for their incorporation and often giving corporations organized in the usual manner the privilege of coming under the cooperative association laws. Some of these laws are applicable to mutual irrigation companies, specifically or by implication, while others contemplate different functions entirely, such as the marketing of agricultural products.

One of the main points of difference between cooperative associations and ordinary corporations lies in the membership provisions. The minimum number of persons who may organize a cooperative association is often greater than in case of a corporation. The cooperative association aims at equality of membership; and to this end the laws provide variously that each member shall have one vote and may own not more than, say, 5 per cent of the total capital stock, or shall hold only one share of stock, or may hold and dispose of stock only to the extent or to the persons allowed by the association. The ordinary corporation, on the other hand, can not restrict the transfer of stock. Stock monopoly is therefore impossible in a cooperative association; it is possible in a corporation in which the shares are not located upon definite tracts of land, but is very unusual in actual practice. The cooperative association is especially designed for the transaction of business or rendering of services in which its own members are concerned, and the distribution of profits as dividends upon stock or upon purchases and sales.

Very few mutual irrigation companies are organized as cooperative associations. The purpose of the mutual irrigation company is not to foster business relations, and its existence does not depend upon the continued patronage and good will of members. Its day-to-day business is not commercial or competitive, but is the distribution to members of a commodity to which they already hold title, either individually or as shareholders. The purpose of acquiring capital stock in a mutual company is not to secure a return on capital invested nor simply to obtain the privilege of buying water; but is to entitle the holder to be served with the quantity of water he thinks will be needed for his crops. Consequently in such company the idea of membership equality must be subservient to a relation between stock and water—either fixed or within certain limits variable—and any declaration of cash dividends, either on capital invested or on volume of business transacted, would be foreign to the purpose of the company and viewed in its most favorable light would be a roundabout way of effecting service at cost. In the ordinary case the general incorporation laws will be found much better suited to mutual irrigation companies.

INCORPORATION UNDER IRRIGATION COMPANY LAWS

While the State laws frequently contain references to irrigation corporations, mutual and otherwise, very few complete statutes for the incorporation of mutual irrigation companies only are to be found. New Mexico has a statute covering the organization of "water users' associations" (10) which may be adopted by any group

of irrigators, including Federal reclamation projects, but this law has not been widely followed. In the Southwest the laws of several States, notably New Mexico, provide for the operation of "community acequias," discussed later under "Types and groups." Oregon's "district improvement companies" and the statute governing them are also discussed under the same general heading.

INCORPORATION BY SPECIAL ACT

The constitutions of all of the 17 Western States now prohibit the legislatures from creating corporations by special act. Such grants were formerly made while legally possible; for example, to early irrigation companies in Utah, including one or two mutual companies. The author is not aware of any existing mutual irrigation companies formed by special act of the legislature, although one of the Utah companies can trace its right to such a grant (*II, p. 54*).

CONTRACT BETWEEN MEMBERS

Unincorporated irrigation associations are suited to only the simplest situations and are not to be recommended. As many exist, however, it is well to indicate briefly the relations between members.

FORM OF AGREEMENT

A verbal understanding between members is often the only basis of organization but is too easily subject to misunderstanding and is therefore not safe. The far wiser course is to reduce the agreement to writing and have it signed by each of the original members. Agreements of this character are often referred to as "articles of association," because for the larger enterprises they sometimes follow more or less closely the form prescribed by law for articles of incorporation of corporations.

RIGHTS AND RESPONSIBILITIES OF MEMBERS

Members of an ordinary unincorporated mutual association are usually regarded as tenants in common of the association property. In some cases their relations may be those of partners, but a partnership implies a business and expected profits, while the mutual association is usually organized for delivery of water to members only and not for hire. Their rights and responsibilities as against each other are limited by the original agreement. Ordinarily any member may dispose of his interest without the consent of other members, and the majority in interest has the right to control the affairs of the association so long as the minority are not injured.⁶

The statutes in a number of States provide for incurring operation and maintenance expenditures by part of the owners of an unincorporated ditch and recovery from the other owners of their just proportion. Such recovery involves court action, is always troublesome, and is therefore frequently not pressed by those who shoulder the responsibility for keeping the ditch in operation. This is one

⁶ For discussions of the legal attributes of unincorporated mutual irrigation associations, see (*9, p. 2616-2633; II, p. 343-345*).

of the chief objections to an unincorporated association. A fruitful source of trouble is the amount of the annual assessment and whether or not it is altogether justified. The fact that members can not be compelled to contribute to the cost of improvements to which they have not assented allows many opportunities for wrangling over what constitutes an improvement. Incorporation of these associations is not a panacea for all their ills but is undoubtedly a long step forward in the direction of efficient management.

BASIC AND REGULATORY MEASURES

The affairs of an incorporated mutual irrigation company are conducted in accordance with four groups of measures, each of which has its separate function to perform, namely, (1) corporation laws of the State, (2) articles of incorporation, (3) by-laws, and (4) rules and regulations. The corporation laws and the articles form the basic constitution of the organization, while the by-laws and rules are directed to its internal government and management. The arrangement of many mutual companies shows a tendency to elevate measures to a higher class than necessary; in other words, to include matters in the by-laws that belong more properly in the rules and regulations and to say unnecessary things in framing the articles. Many such transpositions make little or no difference, but others cause trouble and delay. Smooth operation is better served by keeping these statements and rules of action in their proper places.

Detailed discussion of corporation laws, articles of incorporation and administration of mutual companies will be found in the Appendix, p. 38.

WATER DISTRIBUTION

The principal everyday function of a mutual company is to deliver water to those entitled to receive it; in other words, to the stockholders or their representatives. Methods of delivery do not differ basically from those of other organizations. But the mutual company is a flexible organization for effecting water distribution, particularly in those jurisdictions in which the water, and consequently the stock, may be readily transferred from one tract of land to another. These matters are discussed more fully in the following pages in connection with capital stock and assessments.

FINANCES

CAPITAL STOCK

Stock represents the capital owned by a corporation, and is divided into shares proportioned according to the interests of the several individual owners. The shares are personal property and pass freely from one person to another, being evidenced by certificates transferable on the books of the company. While a corporation may not place unreasonable restrictions upon stock transfers, a mutual irrigation company may, when properly authorized, provide that its stock shall be attached to land as an appurtenance and shall pass only with the land. Stock attached to land is "appurtenant" or

"located" stock; stock not so attached, but carrying a right to water which is freely transferable from one tract to another, is "floating" stock.

The authorized capitalization of a mutual company is usually set at a figure which represents the value of physical property and water rights to be acquired by the company, with a margin to cover later acquisitions so far as they can be foreseen at the time of formation. Such capitalization is the basis of corporation filing and annual license fees required by the State, serves to limit the amount of each assessment where the statutes prescribe a limitation, and may govern the permissible amount of indebtedness. It is well to make the authorized capital sufficiently large at the start to cover additions to the irrigation system which it is evident will be required in the near future, and thus avoid the formality of amending the articles. On the other hand, authorizations beyond the company's obvious requirements are useless and serve to increase the State fees.

Original capitalization of a new company, then, is ordinarily made to represent actual value. However, there are exceptions, in that companies formed for the purpose of operation by settlers already holding water rights appurtenant to the land, as on Carey Act projects, or under other circumstances where the stock value is submerged in that of the land, have sometimes capitalized at purely fictitious values, such as \$1 per share. In some States this situation could be readily covered by issues of stock of no par value. The effect of unduly low capital values upon assessment levies is discussed later under "Assessments and water tolls."

The share of stock in a mutual irrigation company is distinctive in that it represents not only a proportional part of the ownership of the company, but also the right to receive water. Where the company holds the water rights, the shareholder will ordinarily be entitled to delivery of a proportional part of all water controlled by the company. In an early Colorado case¹ the court decided that even though the quantity of water mentioned in the stock certificate was 2.16 cubic feet per second, the holder was nevertheless "entitled to a share of whatever water was flowing in the ditch, proportioned to her interest in the company." It has been customary with a number of mutual companies to assign a definite quantity or rate of flow to a share of stock based upon the total appropriation of the company, in which event the stock issue is necessarily determined by the quantity of water appropriated. In a new country it may prove wiser not to state on the stock certificate the right to receive any definite quantity of water, for experience in many places has shown, with passage of time, a decrease in water requirements or a greater tendency to economy in its use; hence a statement of quantity of water per share of stock in the by-laws, rather than on the stock certificate, will accomplish the same purpose and will be much easier to adjust should the situation demand it later. The proportional or graduated charge for water delivery made by many companies need not conflict in any way with the stock rights, for the stock may be stated to entitle the holder to delivery of water, but conditioned upon payment of an equitable delivery charge made by the company.

¹ Rocky Ford Canal, Reservoir, Land, Loan & Trust Co. v. Simpson, 5 Colo. App. 30, 36 Pac. 638.

Ratios of mutual-company stock to acreage of land vary widely in actual practice. Where water rights are appurtenant to land, the ratio makes little difference so long as it is uniform throughout the system or is proportioned according to the respective quantities of water so appurtenant. In such case one share to the acre, combined with toll charges based upon quantities of water delivered, is a logical arrangement that has worked out satisfactorily. This is the plan used by Santa Ana Valley Irrigation Co., California, and some others and was used by several Imperial Valley companies. On the other hand, in companies with no restriction upon the free transfer of water, ratios vary not only throughout a single system but also from year to year, because of the differing irrigation and other economic necessities of different farmers. In such companies, where crops are fairly uniform, notably in the citrus areas of southern California, ratios averaging from one to two shares per acre provide sufficient flexibility and are quite common; but where soils and crops are diversified, stock issues which will tend to strike an average of five or more shares per acre are more suitable. A decided preponderance of shares over acres will tend to reduce the demand for issuance of fractional shares of stock, which are conceded by company officials to be a great nuisance from the standpoint of recording transfers and in many cases from that of delivering water, and are now being avoided as much as possible. Extreme examples of stock ratios leading inevitably to fractional shares are provided by early companies which originally issued stock at the rate of one share to 640 or 160 or 40 acres; while even such issues as one share to 5 acres have given trouble. Purchase of very small fractions of stock in any event is often a poor investment for the water user, due to the practical difficulty of measuring the small quantities of water they may represent. For example, the practice of a certain California company is to deliver small heads of water and to measure only to the nearest share, so that the purchase of a fraction often adds nothing to the quantity otherwise delivered. A Montana company found the division of heads represented by its fractional shares so difficult and the resulting use of water so wasteful that the issuance of fractional shares was discontinued.

CLASSES OF STOCK

Issue of stock of different classes is generally authorized by law and is occasionally practiced by mutual companies. One purpose of classification, noted in various instances in Utah, is to segregate water rights of different priorities. Other purposes include separation of direct-flow and reservoir water, or water obtained from different sources; and division of the irrigation system into areas served by different canals or lying under different pumping lifts. Stock classes may be given different par values, carry different voting privileges, and be subject to different assessments, according to the requirements of the individual mutual company.

Division of mutual-company stock into classes sometimes serves a useful purpose difficult to accomplish in any other way, especially if different kinds of preexisting rights are involved; but if carried to an extreme it complicates assessments and water distribution and

becomes a distinct hindrance to smooth operation. The complications arising from 11 different classes of stock noted in one instance may be readily appreciated. To avoid such trouble, efforts are being made, in effecting consolidations of companies in Utah, to bring about an actual pooling of water rights so that quantitative rather than qualitative stock issues may be made by the consolidated company. Doubtless, under many circumstances the desired result could be accomplished by issuing stock all of one class and allocating shares to different reservoirs or other sources of supply, as has been done by the Farmers' Reservoir & Irrigation Co., Colorado; or to different divisions or distribution areas, as in case of several California companies.

A division of stock in no way connected with water rights, but designed to get the stock into the hands of water users as quickly as possible, was effected by the promoters of Provo Reservoir Water Users' Co., Utah. All stock was originally "general" stock, not assessable and not entitled to water service, but all convertible into full-fledged "district" stock. An owner of 200 acres, then, with 50 acres ready for cultivation, would buy 50 shares of "district" stock for his cultivable area and 150 shares of "general" stock for the balance of the farm, and would convert the latter as fast as he brought the remainder of his land under cultivation. A further classification under this enterprise on the basis of water rights has nothing to do with the stock division just described.

TREASURY STOCK

Treasury stock—stock which has been issued and disposed of for a valuable consideration and later found its way back into the company treasury, or which has been issued but is being held by the company pending its sale—ordinarily is nonassessable and therefore nonproductive. Organizations to which shares have reverted through nonpayment of assessments have sometimes resold these shares at very low figures in order to get them into private ownership again, subject to assessment; while others have cancelled such forfeited stock in order to improve the proportional water supply of stockholders in good standing. Individual circumstances necessarily govern such action.

STOCK VALUES

PAR VALUE

The par value of a share of stock is a fixed factor of the total capitalization, and is of secondary importance in mutual-company finance. That is, the total capitalization and the total number of shares are of first importance, and when those features are determined the par value follows as a matter of course. From the standpoint of the water user, however, the individual share figures prominently and its par value is a term in common usage.

MARKET VALUE

The market value of "floating" stock, carrying a right to water which is freely transferable from one parcel of land to another, depends primarily upon prices received for farm products and the

state of the company's water supply. Other influences are traceable to the company's indebtedness and the assessments so occasioned, but are scarcely noticeable in the face of general market and water supply conditions, especially as a water user has ordinarily only one company to resort to for his water. Consequently the price a user will pay for additional water will be governed by the profit he expects to make out of irrigated crops. In a year of heavy rainfall the demand is less than in a dry season, so that the curious spectacle is presented of depreciation in value of stock of an irrigation company when its reservoir is full and appreciation when the water supply is low. "Primary" stock in the Davis and Weber Counties Canal Co., Utah, is stated to have been selling at \$325 per share in 1920, following a dry season, when prices were high, with a drop to \$140 with decreases in prices of farm products and recurrence of wet years. During the two seasons immediately following the war, the market values of a number of mutual-company stocks throughout the West went to the highest levels in their history, and almost invariably dropped considerably during the ensuing depression; although in many other companies the actual fluctuations were slight. Fluctuations in value due to changes in the water supply are mainly local and temporary, for over a period of years the market value of the mutual-company stock tends to build up with the development of the country. Consequently in prosperous, growing communities, these market values are frequently much in excess of their respective par values, some instances having been noted of market values ten times greater than par.

Stability of the market price of stock is naturally upset by dumping upon the market any appreciable quantity of stock. This took place recently in connection with Anaheim Union Water Co., when a tract of land on which water had been used was subdivided for residence purposes and provided with domestic water from another source, leaving the irrigation stock in the hands of the former owner for disposal at the best figure obtainable. On the other hand, stock of San Dimas Water Co., which discontinued its practice of allowing shareholders to buy surplus water, went up in price with the demand thereby created by those users who had not been holding enough stock for their needs. Stock of Temescal Water Co., allocated to two different topographic levels, brings out definite market value influences, in that on one level the land is in large blocks and very little stock is being released for sale, so that scarcity of the available supply of stock keeps the price up; while on the other level the holdings are not so large and changes are more frequent, which in addition to occasional subdividing of tracts brings more stock upon the market and tends to lower the price. Other factors creating a high price for stock are preponderance of land over water, and the increasing need for water as in a general orchard section where the increase is caused by the maturing of trees over large areas.

It should be obvious that in situations of this kind the integrity of a share of stock, and consequently its market value, can be maintained only so long as the water users have confidence in the care and disinterestedness with which water deliveries are made. Cases are known in which market values of individual shares dropped below

their actual book value simply because methods of water distribution and measurement were so careless that ownership of a few shares more or less cut little figure in the quantity of water delivered and gave the farmers little inducement to pay out real money for additional stock.

STOCK WITHOUT MARKET VALUE

Stock that is appurtenant to land has no separate market value, simply because it can not be sold separately from the land. The value of the stock is real enough, but it exists under cover of the land value.

Likewise, stock of a company which sells carrying capacity only, to holders of rights in another company, as described hereinafter in connection with the Owl Creek Supply & Irrigation Co., Colorado (p. 30), has no market value; for when the carrying capacity of the canal is reached more stock is issued to enlarge the canal. There would be no point to limiting the capacity forever. The situation would be different if the available water supply at the head of such canal were limited.

STOCK SALES BY COMPANY

Sales by the company of stock which does not become appurtenant to land will ordinarily be at prices not far from current market values of issued stock, for the company puts itself in the same position with relation to the law of supply and demand as any private stockholder with shares to sell. Necessarily the consideration for such sales must conform to State laws and regulations, including the blue-sky laws, and to restrictions in the articles of incorporation. Any restrictions upon the free transfer of water from one tract to another will tend to place the company's offerings in an advantageous position on the market.

The situation is different where issued stock is definitely located upon land and therefore has no separate market value. For example, Santa Ana Valley Irrigation Co., California, locates stock upon land to which the water is appurtenant, and in selling new stock has followed the practice of adding the amount of each assessment, plus 10 per cent interest, to the original par value of the stock, so that in 1922, with the par still at \$5, the selling price of new stock had grown to \$134.49. This policy has had two purposes—namely, to place late buyers on the same financial footing with relation to the stock as were the early buyers, and to discourage holding off from buying for the sole purpose of avoiding payment of assessments. Doubtless if this stock were not appurtenant to land its market value would be much higher than the arbitrary price fixed by the company, inasmuch as its intrinsic value when located upon a piece of otherwise dry land is far in excess of the price indicated. A different condition resulted in another company in central California which had been adding construction assessments to the selling price of stock, but which permitted unlimited transfers of water, in that eventually it became cheaper to rent from stockholders than to buy from the company.

THE IMPERIAL VALLEY REORGANIZATION

In connection with discussion of stock values, mention should be made of the basis upon which Imperial irrigation district, California, acquired the stock of the 14 mutual companies in the 1922 reorganization hereinafter referred to. There were differences in par values of the stock of the several companies, although most of the older ones had par values of \$10 per share, and necessarily there were wide differences in actual net value of stocks. In the purchase of these companies by the district, a uniform compensation of \$10 per acre of water-stocked land was fixed as the basis of purchase. In those companies where the ratio was one share per acre, the price paid was accordingly \$10 per share, and in the other companies it was graded proportionately. To the total price of shares of each company, additional compensation was added for the appraised value of equipment taken over. Then from this gross price was deducted all indebtedness due the district from the company, and in the dissolution of each mutual company the net proceeds, after discharging all indebtedness, were distributed to the shareholders.

Payment of actual cash to the stockholders by their own district may appear at first blush equivalent to taking money out of one pocket and placing it in another, and to a certain extent it was. Nevertheless there were practical reasons for a cash compensation. In the first place, the district was taking over not one company but many constituent companies on very different financial footings. Certain companies were wealthier than others, had put more money per acre into their systems, and had fewer debts. Again, the financial condition of the farmers at that time was depressed; many had pledged their stock for indebtedness and could not borrow advantageously elsewhere to clear the stock for release to the district; so the alternative appeared to be for the district to borrow money on bonds at a lower rate of interest to clear the stock. Furthermore, there were many stockholders who could not see why they should give up stock certificates, for which they had paid cash, without receiving some cash equivalent, and the psychological effect of a cash dividend was therefore important. In more prosperous times it is quite possible that a different basis of settlement might have been reached.

APPURTENANCE OF STOCK

A distinction is to be drawn between appurtenance of stock to land and appurtenance of water to land. That is, where the water right is vested in the landowner rather than in the irrigation company, the water under some circumstances is appurtenant to land entirely irrespective of stock in the company through which the water is delivered, the question of appurtenance of water being a legal matter, depending upon the rule in the State and the facts in the case. On the other hand, where water rights are held by the company, the water may not be appurtenant to land at all, while the company's stock remains floating, yet the effect of locating the stock upon particular tracts of land would ordinarily be to tie the water represented by the stock to that land, subject to separation under prescribed conditions. Under some circumstances, then, a mutual company has no alternative other than to regard its stock as appurtenant, either legally or for all practical

purposes; while in other cases it has the choice of locating its stock or of allowing it to remain floating. In the following paragraphs are set out the principal features of this important question, as well as the advantages and disadvantages, as developed by actual experience, of making stock appurtenant to land.

METHODS OF MAKING STOCK APPURTENANT

Location of stock on land by voluntary action of the company is ordinarily accomplished through the articles of incorporation, by-laws, and stock certificates. For example, the steps taken by certain of the former Imperial Valley companies were: Provision in the articles that shares should be located upon land owned by the holders, at the rate of one share to the acre; statements in the by-laws (1) that water should be delivered only to land thus stocked, (2) outlining the procedure by which shares should be located and conditions under which they might be severed and relocated on other land, including a provision that sale of stock by the company for delinquent assessments should effect a severance, and (3) prescribing the form of indorsement on the stock certificate; and indorsement on the stock certificate by the secretary, under order of the board, that the stock is located upon certain described lands.

A California statute authorizes mutual companies to make their stock appurtenant by enacting a by-law to that effect, having the same recorded in the office of the county recorder, and describing the lands in the stock certificates; whereupon the shares may be transferred only with those lands. A few companies have elected to follow this procedure. Those adopting it can not sell the stock for delinquent assessments without holding power of attorney or similar authority from the shareholders (2).

STOCK MONOPOLY

Tying the stock to the land unquestionably prevents its concentration in the hands of speculators, unless the latter are prepared to acquire the land as well. Actually there have not been many cases of monopoly of floating stock. Instances are known of such accumulation for the purpose of renting out the stock to water users at a profit, but are limited by the fact that in years of low demand for water the owner's assessments must nevertheless be paid. On two important streams in central California, commercial concerns were enabled to acquire the majority stock of a number of small companies and thus to change their character completely.

In this connection, appurtenance of stock prevents its alienation by farmers when hard pressed for money, which happened to their detriment in certain instances in Cache Valley, Utah, in which the stock was not tied to the land.

ECONOMY OF USE OF WATER

Allowing stock and water to pass freely from one tract of land to another tends to a generally higher use of water, which is the principal argument in favor of this kind of stock. This situation is exemplified on the Cache la Poudre, in Colorado, where the incentive

has been to reach out for more land upon which to use a given block of stock and thus to increase the duty of the water it represented. Greater flexibility in use of water is thus attained, tending toward an eventual acquisition of stock by each farmer based upon his actual needs.

Appurtenance of stock in some places has given little inducement toward an economical use of water; but a broad statement to this effect is not justified, inasmuch as economical use of appurtenant water has been successfully brought about by making a toll or carrying charge for water proportioned according to the quantity delivered.

CONSTRUCTION OF LATERALS

A sound reason for locating stock upon definite tracts of land is to protect the company against a severance of the stock from land to which the company has gone to the expense of building distributing laterals. Some organizations have had just such experiences. This question, of course, does not arise in enterprises which require the farmers to build their own distributing laterals.

OPERATION OF IRRIGATION SYSTEM

Appurtenance of stock makes for greater ease and efficiency in operation. A canal is designed for a definite capacity, and if stock is appurtenant this capacity is not exceeded. For this reason some companies require their stock to be located upon definite tracts of land, but allow it to be severed and relocated on other land upon approval of the board of directors. Others require location of stock upon a definite subdivision such as 40 or 80 acres, with no restriction upon the minimum number of shares which may be so located and used upon any part of the subdivision. And still others have a rule that water will not be delivered to more than two or three shares of unlocated stock per acre.

Unlimited transfers of water from one portion of a canal system to another may easily cause trouble, and for that reason are seldom allowed in practice even by those companies which do not regard their stock as in any way appurtenant to separate parcels. That is, many such companies permit transfers of stock from one lateral to another only if specifically approved by the board of directors, who base their decision upon the effect of such proposed transfer upon other water users and upon general operation requirements. Taking too many "heads" of water out of a lateral may conceivably reduce the flow to a point of marked inefficiency. Furthermore, proper regulation of water distribution leads other companies to require all transfers to be completed before the season opens, or to restrict them to certain periods during the season. The actual rule followed by any particular company will naturally be governed by its operation necessities, balanced so far as possible by individual requirements of irrigators.

APPURTENANT TO CIRCUMSCRIBED AREA

In some places stock of a company is made appurtenant to an area of land within which it may be transferred from one parcel to another without restriction. This has come about in certain cases

with the substitution of a mutual company for an irrigation district, in which the water was necessarily appurtenant to the land; and in other cases where the company builds the distributing laterals and takes this means of limiting construction.

COMMERCIAL ENTERPRISES

Mutual companies which originate in connection with the promotion of commercial enterprises usually have their stock located upon land at least at the start of their careers. In a land-selling enterprise such a course is necessary to protect the land company against alienation of the water from the land while the company still holds an equity in it; and in an enterprise engaged solely in the sale of water rights, it is advisable in order to prevent interference with the continued sale of rights for dry land.

LAND TRANSFERS

Stock that is made appurtenant to land and that can not be separated by the mere act of the owner passes with it upon every transfer, so that an unsuspecting purchaser of land is safeguarded against a secret prior separation of the water, an injustice which unfortunately has been perpetrated in a number of cases upon newcomers in a country. Severance of stock requiring approval of the company necessarily becomes a matter of record.

If the stock is not thus tied to the land, the question of its transfer with the land upon a sale of the latter will depend upon the wording of the deed and the intention of the parties. Thus, if the phrase "together with appurtenances" is used, the evident wording is to pass the water rights with the land, whether evidenced by stock certificates or otherwise; and this has been so held in a number of cases. On the other hand, conveyances of land in which certain shares are described have been held to exclude additional water rights not so mentioned, even though the inclusive term "with appurtenances" is used.

EFFECT OF ADJUDICATION OF WATER RIGHTS

The two rules on State adjudication may be illustrated by referring to Utah and Oregon. The Utah rule considers that once water has been diverted from the natural channel by an incorporated company the State engineer's office has no further concern in the matter; but if diverted by an unincorporated association the office must consider the rights as individual even though exercised in common. In Oregon, on the contrary, adjudication by the State ties the water to each individual tract on which the right has been perfected by beneficial use, entirely irrespective of the fact of incorporation or of the stock holding of the owner, so that upon issuance of such a decree an adjustment of stock becomes necessary in those cases where the stock has previously been floating. If the owners can not agree upon an adjustment, apparently carrying charges for water offer the only equitable alternative.

The water right on 1,620 acres on which stock of Keystone Irrigation Co., Nebraska, had been located was canceled by the State in

1922 for nonuse of water, creating a very difficult situation. The stockholders on these lands had been paying assessments, but were relieved by the company from further payments after this cancellation, which left the balance of the stock to carry the entire burden. The question of ownership of the stock had not been adjusted when this company was visited.

In certain outlying mountainous communities, companies were found which were paying no attention to the appurtenance feature of decreed water rights, but were allowing the water to follow the stock wherever it went. Such a policy is quite likely to lead to trouble for the company and for innocent purchasers of stock.

EFFECT UPON CORPORATE REMEDIES

Where the water itself is specifically appurtenant to land, a sale of stock for delinquent assessments can not of itself operate to separate the water from the land, but may deprive the owner of the use of the company's canal system in conveying the water to his land, which in most cases would work a practical forfeiture of the individual's right owing to his inability to divert the water through any other channel. The right of the company to deliver such water to a purchaser of the stock at delinquent sale would be questionable; and with this right denied, the company would have to bid in the stock itself, as it would not be marketable. On the other hand, stock located on land by action of the company, where the company holds the water right, would, with the right to receive water, be ordinarily separable on such delinquent sale unless the peculiar provisions of the contract between company and stockholders operated to prevent it.⁹

Where the stock and the water are appurtenant to individual parcels of land, the company's assessment is better protected if it has a lien, statutory or contractual, upon the land as well as upon the stock.

STOCK RENTALS

Rentals of floating stock are quite common, and rentals of water represented even by located stock are permissible in some jurisdictions under the rules of the particular company allowing them. The amount of the rental is, of course, determined by the market value of the water. In some communities rentals have been based upon the amount of the assessment plus interest on the market value of the stock.

BONDS

Bonds occupy a less prominent place in mutual-company finance than in that of irrigation districts. One of the main objects in forming most irrigation districts has been to issue bonds, whereas a relatively small percentage of mutual companies have done so. Much mutual-company development represents an investment of capital in the stock of the company rather than borrowed on its credit. Again, when large improvements by mutual companies seemed in order the market for their bonds in many sections of the West was

⁹ See discussion by Bennett, James S. (2).

often sufficiently narrower than that for good district bonds to induce the formation of districts. In other cases, after talk of forming a district, troubles into which neighboring districts had been led through unwise bonding dampened the enthusiasm of mutual-company stockholders and caused them to reduce their contemplated expenditures below the necessity for issuing bonds. These various conditions have naturally tended to keep down the total amount of mutual-company bonds on the market.

While complete information is not available, data have been secured on \$17,002,600 of bonds disposed of from time to time by 53 mutual companies, as shown in Table 1.

TABLE 1.—Purposes of bonding 53 mutual irrigation companies

Purpose	Amount of bonds
Extensions and improvements to existing systems.....	\$12,172,100
Purchase of constructed works.....	2,078,000
Refunding outstanding indebtedness.....	1,720,500
Entirely new development.....	1,032,000
Total.....	17,002,600

These 53 companies are representative enterprises scattered throughout the West. The \$12,172,100 sold for extensions and improvements include \$6,543,000 issued by one organization, the Salt River Valley Water Users' Association, in connection with a power-development program. Interest rates varied from 5 to 9 per cent, with most issues bearing 6 per cent. There were some reports of default in payment of principal and interest in this group, but not many. Maturities were rather varied. The issues were mainly serial, the first maturities being seldom postponed more than 5 or 6 years and frequently beginning one year after issue, and the latest issues maturing in 10 to 30 years.

Denominations of bonds, maturities, and interest rates are questions to be decided by the issuing company, with no statutory requirements on the matter aside from limitations upon the amount of indebtedness that may be created with relation to the amount of capital stock. Bond issues of mutual companies are subject to State regulation to the extent prescribed in the various blue-sky laws.

SECURITY FOR BONDS

Bonds of a mutual irrigation company are secured by a mortgage upon the irrigation system, water rights, and all other property of the company. They are not secured by the land served, unless individually provided for by the stockholders of the company, which is not ordinarily done, or unless assessments are made a lien upon the land as well as upon the stock. Hence a mutual company prior to construction of its irrigation system ordinarily has no security to offer for a bond issue, and is in an even less favorable position for financing development in an arid country through bond issues than is an irrigation district, which can offer the land, relatively valueless as it may be in an unreclaimed state. The mutual company is in a

far better position to issue bonds for the further development or improvement of an already existing community, in which values created earlier through other means are now available as security.

One of the important tests in determining the soundness of mutual-company bonds is the relation of irrigation to land values, and incidentally to the value of improvements built up as a result of it. In a territory where the land is worth little or nothing without water, the soundness of such a bond would be much greater than in a section where irrigation adds relatively little to the productivity of the land, other things being equal; for in the first-named case, even though the bonds are not secured by the land, failure of a landowner to pay his assessments will result in loss of his stock and of the water service represented by it, which will ruin the productivity and therefore the value of the land and may wipe out his entire investment. Equally important in its effect upon the attitude of the bond buyer is the reputation of the community for paying its debts; and so sensitive is the bond market that one instance of default may be fatal to future borrowing.

THE BOND MARKET

The market for mutual-company bonds is relatively local, but tends to increase with the age of the community, development of land values under irrigation, and reputation of the company for paying its bills. Therefore when developments are in reasonable proportion to the needs of the community, and do not involve too heavy expenditures the necessary capital can often be found in near-by investment centers. On the other hand, supplemental development calling for large bond issues has, in a number of cases, exceeded the capacity of mutual-company bond markets and required the organization of irrigation districts. The respective markets for the two classes of bonds constitute the determining factor, the location of the enterprise in respect to the various centers of bond-selling activities being an important consideration. Bond issues of \$1,000,000 or more are not at all uncommon in the ranks of irrigation districts; but the writer's attention has been called to only two mutual companies which have issued bonds in such amount. The \$6,543,000 total of Salt River Valley Water Users' Association is an outstanding exception.

IMPORTANT CONSIDERATIONS

Interviews and correspondence with members of 17 bond houses, as well as with mutual-company officials, have brought out the following points:

(1) Mutual-company bonds are being handled principally in three western financial centers. The strongest market is in Los Angeles, where they compare favorably with irrigation-district bonds and are actually preferred by many investors. Other important markets are in Spokane and Denver and the territories they serve. In all three centers these bonds appear to have been gaining in favor in recent years. They are practically unknown or at least not understood in the East, except by eastern clients of western bond houses.

(2) Irrigation-district issues are more numerous and larger, and have called for more publicity and broader educational campaigns

on the part of investment banking houses, which have resulted in wider markets. Mutual-company issues, on the other hand, are generally of comparatively small amounts and on the whole are confined to narrower markets. The more limited demand and greater cost of selling mutual-company bonds causes them to sell at lower prices and higher yield, with a difference in net return of 0.25 to 1 per cent above that of district bonds.

(3) The difference in character of lien of assessments has made district bonds in general more salable than mutual-company bonds, although the bond dealers themselves realize clearly that enforcement of the lien in case of default causes about as much trouble in one case as in the other. In other words, a defaulted bond is a bad bond, by whatever organization issued. The general feeling, however, has led to greater conservatism in the matter of mutual-company bonds, for it has tended to hold the market to issues by companies in old-established territories, where values are high and the investment on the part of the individual water user is large enough to insure his payment of assessments.

(4) One bond dealer indicated an unfavorable experience with mutual-company bonds, due to changes in canal-company management and to financial assistance necessary during the life of the bonds. Experience of others in the matter of management was just the reverse, and the preponderance of opinion was that the greater flexibility in administration and the speedier remedies against delinquents in a mutual company gave it an advantage from the investor's standpoint.

(5) The fact that irrigation-district bonds are exempt from Federal taxation is an important selling point, but as against mutual-company bonds it carries less weight in some markets than in others. In Los Angeles, for example, it is important, due to the number of wealthy investors who buy there. Consequently in issuing bonds some mutual companies in southern California covenant to pay the normal Federal income tax, or such tax not to exceed 2 per cent. In Spokane, on the contrary, there are fewer investors whose incomes would be materially increased by tax exemption to a point where it would influence their choice of district or mutual-company bonds, and in such case the absence of the tax-exempt feature is not found to constitute any serious sales resistance.

OTHER INDEBTEDNESS

Money is often borrowed on notes, secured by mortgages on the canal systems, for terms of years considerably shorter than the usual life of a bond issue—for example, a series of notes maturing annually at the expiration of one to five years—for the purpose of making improvements or for extraordinary repairs and replacements. For instance, the Arkansas River flood of 1921 damaged the irrigation works of a number of mutual companies and necessitated large loans for reconstruction purposes. Long-term notes are executed with single lenders or groups of lenders interested in the welfare of the community or cognizant of its ability and intent to repay the indebtedness rather than being offered on the general market. Typical loans of this character to representative companies in recent years have borne 6 to 8 per cent interest.

Borrowing for current expenditures, pending collection of assessments, is an ordinary business transaction with mutual companies. Interest rates depend upon current rates in the community and upon the credit and resources of the company, and in recent years have varied all the way from 6 to 10 per cent. In one instance a lateral-canal company in Colorado was paying 8 per cent at the time its parent company was securing 6 and 7 per cent, due mainly to the difference in resources of the two organizations. In prosperous communities it is common practice for mutual companies to borrow from their own stockholders.

ASSESSMENTS AND WATER TOLLS

Funds required to do business are secured from assessments upon the capital stock of the company, or from tolls or charges based upon the quantity of water delivered, or both. Each assessment must be levied at a uniform rate upon all outstanding shares of stock of a given class, but may be applied at varying rates to different classes.

Fixing the actual rate of assessment may be a very unpleasant task for the directors if an increase over the rate for the preceding year is necessary, for protests are almost sure to develop. As the mutual company is self-governing and self-sustaining, the wishes of the water users must be given consideration in making increases to cover new work. The psychological effect of increasing assessments has been felt in organizations formed to take over and operate Carey Act projects; for example, where the development company had been limited by its contract with the State to an operation charge which proved to be much below the actual cost of operation and where the water users therefore suddenly found themselves confronted with relatively heavy assessments. The directors of one such company wished to avoid antagonism and consequently retained the old rate for several years, but ran into debt as a result and thus put a greater burden on the stockholders than would have been the case had they met the issue at the start.

Where more than temporary indebtedness has been incurred, and particularly in case of bond issues maturing over a series of years, building up a sinking fund to meet principal payments as they fall due is a wise precaution.

A combination of water tolls and assessments offers an effective means of holding down the use of water where the stock is appurtenant to the land. The share of stock represents ownership in the irrigation system and increases in intrinsic value with each improvement made; therefore, it is just that the share should be assessed for its proportionate part of the cost of all improvements which add to the value of the system. If in addition to this, operation and maintenance expenses are defrayed by means of a charge per acre-foot for water actually used, the stockholder is given a real incentive to use water economically. Where circumstances are such that this arrangement would throw an unduly heavy burden upon those of the stockholders who are actually using water, the stock assessment can be made to take care of a part of the operation expenses, in return for which each share may be entitled to a minimum number of acre-feet, with a charge for each acre-foot used above the minimum.

The mutual company enjoys an important advantage over the irrigation district in the flexibility of dates of levying and collecting assessments, dates which can be made to conform to the varying requirements of individual companies. Some companies levy from three to five assessments a year, owing to the preference of the stockholders that the payments be smaller and be scattered over the season. In other cases, where the crop money comes in largely at one time, a single assessment is timed to follow it closely. Again, spring assessments may be made to raise operation and maintenance money, and later assessments for other purposes, such as payment of interest and power charges.

The effect upon assessment levies of low par values of stock and statutory restrictions on the size of levies may be illustrated by two examples. California limits assessments to 10 per cent of the amount of capital stock and Montana to 5 per cent. Marygold Mutual Water Co., in the former State, formed in connection with a land subdivision, one share to the acre, was originally capitalized at \$1 per share, although the value of the system was far in excess of that, and was thereby limited to assessments amounting to 10 cents per acre so long as the par remained at that figure. Big Ditch Co., Montana, with an original ratio of 32 shares to 160 acres, and a par value of \$10 per share, was held to an average of about 10 cents per acre. The former company, therefore, resorted to imposition of water tolls for operation expenses, while the latter levies repeated assessments throughout the year. In other words, in such cases some of the flexibility of mutual-company operation is sacrificed.

LIEN OF ASSESSMENTS

The assessment is a lien on the stock on which it is levied. In Oregon district improvement companies, the assessment is a lien upon both land and crops. There may exist a statutory lien upon lands to which the water rights are appurtenant, as in Idaho; or a contractual lien where provided for in the articles of incorporation, as in companies on Carey Act and Federal projects^a and in a few cases on strictly private projects, where, of course, the stock is appurtenant to the land.

In connection with the financial reorganization of Otero Irrigation District, Colorado, and formation of a mutual company for assumption of the compromised indebtedness, provision was made that any stockholder might retire his proportional part of the company's bonded indebtedness and clear his shares of stock from the lien of any further assessments for principal and interest. Such individual allocation of mutual-company bonds is, however, a very unusual proceeding.

COLLECTIONS

Services of banks are sometimes utilized to advantage in collecting assessments. For example, the secretary-treasurer of Farmers Canal Co., Montana, takes his book of signed receipts to a Bozeman bank

^aAssessments of Salt River Valley Water Users' Association, whose articles of incorporation provide that its stock shall be inseparably appurtenant to land and that assessments shall be a lien on the land, have been adjudged to be liens superior to prior mortgage liens. See Greene & Griffin, Real Estate & Investment Co. v. Salt River Valley Water Users' Association, 25 Ariz. 354, 217 Pac. 945.

where the assessments are paid and collections credited to the company's account. Stockholders of the Fort Lyon Canal Co., Colorado, which serves a long area along Arkansas River, similarly pay their assessments at the nearest of five banks, or if they live near Las Animas they pay at the company's office there.

Penalties are added to assessments delinquent after a certain date. One per cent per month is charged by some organizations. A Montana company found it necessary to raise the penalty from 8 to 10 per cent per annum, for stockholders were letting their assessments go delinquent at 8 per cent rather than pay the current bank rate of 10 per cent on loans.

PAYMENT IN LABOR

Payment of maintenance assessments in labor has been a very important feature of mutual-company operation in Utah and under the community acequias of New Mexico. Some cash is of course needed for operation salaries, purchase of materials, and other purposes, but the members of many of these organizations are given the privilege of working out as much of the assessment as is practicable. This works well enough in small enterprises where the members are all willing workers or where the superintendent is an efficient, impartial taskmaster; otherwise it is satisfactory for neither the management nor the conscientious members. Many such companies have found it preferable to make the assessment purely a cash transaction, allowing the superintendent to follow his own judgment in employing and dismissing his helpers, with the understanding that stockholders shall be given preference in the matter of employment if they measure up to proper standards.

ENFORCEMENT OF COLLECTIONS

The standard remedy for a delinquent stock assessment is to sell the shares at public auction for the amount of the assessment plus penalties and costs. Frequently the statutes give the alternative remedy of foregoing the sale and bringing suit to collect, but mutual companies ordinarily do not do this on account of the trouble and expense involved. One of the foremost incentives to incorporating long-standing irrigation associations has been to avoid suing to collect assessments. And yet, selling the stock of a delinquent shareholder is felt by officers of many companies to be too drastic a measure, and a surprisingly large number will not go to this extremity except in case of long-overdue accounts. In some organizations the secretary appears at the sale to bid in the stock and hold it for redemption by the owner rather than allow him to lose it through inadvertence or temporary financial distress.

Refusal of water service to delinquent stockholders is a rather widespread practice among mutual companies in many States. It is less drastic than the sale of delinquent's stock and is certainly an effective remedy. In order to safeguard the legality of the procedure, it is well to reserve this remedy to the company in specific terms in the articles of incorporation, or at least in the original by-laws, where it is called to the attention of stockholders. The Wyoming statute specifically authorizes mutual companies to refuse water to stockholders

who fail to pay their assessments, and the courts in several other States have upheld the practice. But that it may not be followed unqualifiedly in all jurisdictions appears from an Idaho case¹⁰ in which North Side Canal Co. was allowed to withhold water for nonpayment of maintenance assessments for only the current year and not for nonpayment of past-due assessments. As a result of this decision, this company now makes its assessments payable in one spring installment rather than in divided spring and fall instalments as previously.

OTHER INCOME

The income of a mutual company is ordinarily derived wholly from assessments and water charges payable by its own members. Some companies, while remaining strictly mutual as to water service derive additional revenue from power development or from oil-bearing lands or other subsidiary sources of income, and to that extent reduce their own assessments and charges.

DIVIDENDS

The articles of incorporation of some of the older companies give the directors authority to declare cash dividends, and in the early days in some communities—for example, northeastern Colorado—this was actually done by charging stockholders for water and returning to them in the fall the excess of receipts over expenditures. This practice, however, has long been discontinued, for the mutual company is not a money-making organization, and returning money to the persons from whom it has been collected is a circuitous method of effecting service at cost. Now, therefore, in practically all mutual companies, assessments and tolls are calculated to cover necessary expenditures only, and favorable balances at the end of a season are carried over to the next year.

INTERLOCKING ORGANIZATIONS

LATERAL COMPANIES

The purpose of a lateral company is to build and operate a community lateral on a project where the central organization delivers water only out of its main canals or main laterals and leaves to the individual user or groups of users the responsibility for conveying the water thence to the point of use.

Community control of laterals is an outstanding feature of mutual-company administration in eastern Colorado and in some other parts of the country, where numerous favorable examples may be pointed out. Nevertheless there are so many cases in which the arrangement has been unsatisfactory from the standpoints of both water users and main enterprise management that its adoption on new projects is open to most serious question. Where it is in effect, some form of organization is essential in practically all cases where more than a very few users are involved; for as pointed out above, the operation of unorganized ditches is beset with many difficulties. Furthermore,

¹⁰ Reynolds v. North Side Canal Co. (Ltd.) et al., 36 Idaho 622, 213 Pac. 344.

where large acreages or large numbers of water users are concerned, incorporation is most satisfactory from practically every standpoint, and the arguments cited heretofore in favor of incorporating mutual irrigation companies apply with full force to this particular phase.

Necessarily the size and importance of lateral companies vary widely. The number of lateral-ditch companies, incorporated and otherwise, serving a handful of farms is legion; while at the other extreme Imperial Water Co. No. 1, just prior to its absorption by the district as stated below, delivered water to more than 121,000 acres. Lateral companies have, however, one feature in common, namely, the interposition of another organization between the point at which they take their water and the original point of diversion.

TYPICAL SITUATIONS

OWL CREEK SUPPLY & IRRIGATION CO., COLORADO

The Owl Creek Supply & Irrigation Co. owns and operates the largest lateral under the Larimer & Weld Irrigation Co., and is a typical incorporated lateral company. A water user owns stock in the parent company which entitles him to water from the main canal, and stock in the lateral company entitling him to have such water carried from the main canal to his land. The relation of the two companies is shown by the following provision which appears on the capital stock of the lateral company:

This stock is issued and accepted with the understanding that it is for carrying capacity in the ditch only, on a basis of one Larimer & Weld Irrigation Co. right or two reservoir rights to each four shares of stock in the Owl Creek Supply & Irrigation Co., and each four shares entitles the holder to use water on eighty (80) acres of land and no more during any one season.

BEAR VALLEY COMPANIES, CALIFORNIA

The several mutual companies owning stock in the Bear Valley Mutual Water Co., and which depend upon it for part or all of their water supply, arose principally in connection with the subdivision of land and acquirement of water rights from a commercial irrigation company, and retained their separate existence when the reorganization took place which resulted in acquisition of the commercial company's property and rights by the Bear Valley Mutual Water Co. Water is delivered in bulk to the several lateral companies and by them delivered to their individual stockholders. The lateral companies have their own bonded indebtedness and comparatively little overhead. More nearly uniform water deliveries would probably result from consolidation, but the users are apparently satisfied with the present arrangement and show no disposition to change.

IMPERIAL VALLEY COMPANIES, CALIFORNIA

Imperial Valley, on the contrary, provides an example of absorption of lateral companies by a central organization, which in this case was an irrigation district but might have been a mutual company so far as the centralization feature was concerned. Imperial Valley was reclaimed under a plan which called for diversion of water by a commercial company—the California Development Co.—and distri-

bution to more than 500,000 acres of land by a number of mutual companies. Most of the mutual-company systems were constructed by the California Development Co., which took stock of the mutual companies as compensation and sold it to settlers. After financial failure and receivership, the works of the development company were acquired by Imperial Irrigation District, which in 1922 also acquired the systems of the 14 mutual companies. One of the principal reasons actuating the consolidation was the desirability of centralizing and standardizing the handling of the many operation problems of the valley, such as disposition of waste water and securing of sluicing water, prorating of water in case of shortage, uniformity of deliveries to individuals, more economical use of equipment, need of centralized buying and greater buying power, financing drainage construction, and correlating the drainage work.

RESERVOIR COMPANIES

Existence of a reservoir company apart from a diversion and distribution company implies common storage by different enterprises, as in case of Otter Creek Reservoir Co. in Utah; or separation of direct-flow and storage-right holdings by individuals in one or more companies, as in certain cases on Cache la Poudre River, Colo. Several extreme examples of decentralization in ditch management are to be found in Cache la Poudre Valley, consisting of a company for diverting water and carrying it a short distance, another for carrying it farther, many for carrying it through laterals, and one or more for storing it, requiring water users in some cases to hold stock in four to six different mutual organizations. These complicated situations have arisen, doubtless, as a result of the piecemeal development of this section by independently minded people. Multiplication of organizations necessarily involves duplication of administrative work, although this is not so great as might be expected owing to the practice of having one secretary for several organizations. Greater efficiency in operation is attained by those companies which own and operate their own reservoir systems.

DISTRICTS

To meet special situations, quasi-municipal districts have been used in positions subordinate to those of mutual companies. Thus several irrigation districts were formed for the sole purpose of issuing bonds with which to finance the purchase of stock in Farmers Reservoir & Irrigation Co., Colorado, and may possibly be dissolved when the bonded indebtedness has been paid off. Elsewhere in Colorado, irrigation districts have been used to finance reservoir construction for the benefit of lands supplied with direct-flow water by mutual companies. In Arizona, a type known as an "agriculture improvement district" has been designed primarily for the purpose of bringing noncontiguous dry lands, as well as outlying irrigation communities, into the Salt River project, to give them an opportunity to bond their lands in order to secure the present privileges of the water-users' association, and also where necessary to overcome minority resistance to coming into the project.

DOMESTIC WATER COMPANIES

The use of water delivered by a mutual company for both irrigation and domestic purposes may require formation of a separate domestic company, unless, of course, the domestic water is delivered to stockholders only. At San Dimas, Calif., a company originally intended as a purely mutual irrigation company began the practice of delivering domestic and irrigation water together and became technically in part a public utility. At the instance of the railroad commission a subordinate public utility company was formed to take over the domestic system, acquiring shares of stock in the mutual company sufficient to cover its water requirements, the mutual company holding all the stock of the domestic company. Under this arrangement the railroad commission regulates the rates of the domestic company, but does not inquire into the cost of water to the domestic company so long as it is treated on the same basis as are all other shareholders of the mutual company, whereas if a separate organization had not been formed the railroad commission would have gone into all affairs of the mutual company in order to fix a basis for regulation of the domestic rates. This is an instance of the desirability of allowing mutual companies to own stock in other corporations. Other subsidiary domestic companies are found in southern California, and still others are in prospect as subdivision of land takes place and population increases in territory served by mutual companies. At Escondido, on the other hand, the city owns the domestic water system and holds stock in the Escondido Mutual Water Co.

TYPES AND GROUPS

SPANISH-AMERICAN COMMUNITY ACEQUIAS

The "community acequia" or "public acequia" is an institution peculiar to those portions of the United States settled by the Spaniards. It consists of a quasi-public ditch organization controlled by the holders of so-called "rights" in the ditch, and is the oldest type of irrigation organization in the United States. It is an amalgamation of ancient Indian, Moorish, and Spanish customs, modified to some extent by recent Anglo-Saxon influences, and operates under State laws which recognize and approve such customs. It is public to the extent that all owners of tillable lands are required to labor on the ditch whether they cultivate the land or not, and are made subject to a fine for refusing to do so; and private in that the ditches are the property of their builders rather than of the public and may not be used by others without the consent of a majority of the owners. Most community acequias operate as though they were private.

The laws of several Southwestern States deal with these organizations, but the New Mexico statute is by far the most comprehensive and has been kept alive by frequent additions and amendments, designed not only to facilitate operation but to preserve so far as possible their time-honored practices and customs against encroachments of more modern institutions. The New Mexico law defines community acequias as ditches not private or incorporated under State laws, but which are held by more than two owners as tenants in

common or joint tenants; and declares them to be bodies corporate with power to sue or to be sued, but does not require any particular formality to be observed in acquiring such status. In the absence of an agreement to the contrary among the members, an association of ditch owners conforming to the above definition automatically becomes a community acequia subject to the statute.¹¹

The present extent of community acequias in the Southwest is gauged generally by the relative importance of the Spanish-American population. In New Mexico, therefore, this organization is still prominent, while elsewhere it has lost its former importance and is being replaced by Anglo-Saxon institutions. Results obtained in connection with the irrigation census of 1910 (under the cooperative agreement above referred to) showed that in 1909 there were 480 community acequias in New Mexico, irrigating a total area of 220,737 acres, or 47.8 per cent of the total irrigated area of the State. It is probable that the figures at present are not as great, inasmuch as all community ditches on the Rio Grande project have been taken over by the United States, and a field study made by this office in 1925 in important sections of Middle Rio Grande Valley indicated a negligible increase in the number of such organizations since 1909.

Management is vested by the New Mexico law in three commissioners and a mayor domo, or superintendent, elected annually by the holders of water rights. An important feature of operation is the opportunity given the water users to work out their proportional part of the cost.

For the average small community characteristic of the Spanish-American and Indian settlements in New Mexico the community acequia has proved satisfactory. Its simplicity is a strong point. The mechanism is easily understood and operated, and for people too poor to pay cash assessments but well able to do all work to keep the ditch functioning the arrangement is suitable. On the other hand, the community acequia as at present constituted is not adapted to construction of irrigation works on any great scale or to financing a project much beyond the means of members themselves. A weakness is the lack of adequate safeguards around the ordinary financial transactions of officers. The part that this organization will play in future development will therefore be restricted so long as its financial features remain as they are. Under present-day conditions its greatest efficiency is found in small, fairly self-contained communities.

UTAH COMPANIES AND OLD DISTRICTS

The mutual irrigation company of Utah is one product of a well-organized cooperative movement inspired and directed by the Mormon Church (7, 12). The Mormon pioneers in the Great Basin were the first Anglo-Saxons to practice irrigation on an extensive scale in the United States. Their irrigation institutions at first had many points in common with those of the earlier Spanish settlers in the Southwest, but developed further and produced a type of community

¹¹ P. W. Dent, district counsel, U. S. Bureau of Reclamation (4), analyzes the rights and powers of community acequias in New Mexico and Texas.

organization distinctly private, and therefore different from the community acequia.

Community irrigation in Utah resulted from an organized effort that extended to all community activities and at first claimed no separate organization of its own. In common with all other forms of industry, it was at first directed by the church and in a number of cases benefited by material and financial aid from the church. With more formal organization of secular activities, however, the water users assumed control of the irrigation system and settled irrigation affairs at mass meetings, and with incorporation of cities and towns the councils often assumed control. Then as the interests of town and country became more divergent, independent ditch organizations came about. The old irrigation district, first authorized by law in 1865, was designed to give to irrigation communities the legal standing, protection, and authority which had become needed; but it did not prove altogether suitable either for construction or operation purposes and had to give way to unincorporated associations or incorporated companies. The incorporated company, which is now the most prominent type of irrigation organization in Utah, has proved well suited to management of canal systems and to such modest construction work as these communities have been called upon to handle without heavy financing.

The outstanding features of mutual-company development in Utah, aside from its initiation and early direction by the church leaders, are, (1) the importance of the settlers' own labor in irrigation construction and operation, and (2) the large number of small, persistently independent irrigation communities that have resulted. Substitution of borrowed capital for the landowners' labor in effecting irrigation improvements is a recent tendency by no means universal, but distinctly in evidence, produced by changed rural economic conditions. Establishment of so many small irrigation systems entirely independent of each other was probably the only practicable way of settling the country under early adverse conditions, but has resulted in a present lack of coordination of related irrigation uses and a disposition to stay apart. However, the groundwork laid by the pioneers is intact, and recent results along the line of consolidation of related enterprises indicate that the original cooperative effort may be continued along constructive lines.

SOUTHERN CALIFORNIA COMPANIES

Irrigation in southern California originated with the Spanish padres and was carried still farther by the owners of ranchos and by small groups of water users under Spanish and Mexican rule, but was never extensive prior to the American occupation. Some development took place under the early community irrigation laws of the State, the first of which was passed in 1854, and provided for the election of boards of commissioners and an overseer of irrigation for separate townships. The largest share of the irrigation development of the coastal regions and near-by inland valleys of southern California, however, has been effected under the mutual-company form of organization, very often in connection with the subdivision and sale of land. The physical and climatic features of this section lend themselves in an unusual degree to this type of development.

The mutual water companies, as they are called, in the western part of southern California have proved to be very satisfactory vehicles for the operation and improvement of the many small systems serving these intensively developed communities. They have also been used successfully for original construction of small irrigation systems in the general neighborhood of already developed communities. Of the total area irrigated in 1922 by 61 of the most important companies for which complete figures were available, 69 per cent was in citrus trees and 19 per cent in deciduous trees, or a total of 88 per cent in orchards (3). As the demand for water is much greater than the supply, the values of water and of land with water rights have consequently risen to high levels and the market value of mutual-company stock is often found to exceed the par value several times over. These organizations are generally small, the average area irrigated by the above-mentioned 61 companies in 1922 being 2,005 acres after excluding three of the larger companies headed by Santa Ana Valley Irrigation Co., which has an irrigated area of 17,428 acres. High values resulting from irrigation and a favorable record in meeting obligations have created substantial local markets for seasoned mutual-company bonds. These companies have an association called the California Mutual Water Companies Association, comprising companies located mainly in the section herein considered, for advancement of their common interests.

Mutual companies have been associated in the development of two large projects in the Colorado River area, but have recently been absorbed by irrigation districts. In Imperial Valley, which has already been touched upon under Interlocking Organizations, the development company concerned with the original reclamation of the valley dealt only in water, not in land, the settlers acquiring land under the desert land act. Development of Palo Verde Valley, on the contrary, was pushed as a combined land and water enterprise. In the latter area Palo Verde Irrigation District was formed in 1923, pursuant to a special act of the legislature, to acquire the system of the mutual water company and to finance additional construction, as well as to unify the management of the irrigation system, drainage district, and joint levee district. In both of these large developments, separated from the coastal areas by many miles of desert, the need for centralized management of reclamation affairs has constituted a strong urge toward their financial consolidation.

EASTERN COLORADO COMPANIES

The mutual irrigation companies of Cache la Poudre, South Platte, and Arkansas Valleys, Colo., form a fairly distinct group. They originated in different ways, some having succeeded to the ownership of canals built for purely speculative purposes and others having been strictly cooperative from the beginning. The founding of Union Colony at Greeley in 1870 was destined to have a far-reaching influence on irrigation development in Colorado, for the colony was much advertised and its accomplishments in canal building showed the possibilities of larger irrigation construction than had been common up to that time. The New Cache la Poudre Irrigating Co. now controls the system originally built by Union Colony. At the present

time the many mutual companies of eastern Colorado represent a sound irrigation development of considerable proportions and occupy a very prominent place in canal administration. Several have issued bonds from time to time to finance enlargements and improvements. These issues have been small in proportion to the number of operating mutual companies and to the area irrigated, and have been confined to a relatively restricted market, familiar with the local situation, within which they have enjoyed a good reputation.

Certain mutual companies in eastern Colorado are devoted exclusively to ownership and maintenance of reservoir works, their stock being held by irrigation districts, mutual irrigation companies, and individuals, or by various combinations of the same. Reservoir stock is seldom held by other mutual companies, but rather by their stockholders as individuals; hence the distribution of stock of any given reservoir company bears no necessary relation to the distribution of stock of any single mutual irrigation company. Water released from storage by a reservoir company is distributed through the usual channels through which the stockholders' direct-flow water is delivered, a carrying charge being made for such service.

The companies in this area ordinarily control only their main canals. Lateral ditches are frequently organized, and many of the more important ones are formally incorporated. The gradual growth of some of these communities is reflected in the "extension" ditch companies organized to enlarge and to build extensions to already existing canals. The growth of lateral-ditch companies and extension-ditch companies has resulted, in some relatively small communities, in rather large numbers of separate organizations that could often be consolidated to the material advantage of the water users.

The intricate system of exchanging water in Cache la Poudre Valley has been described in an earlier bulletin of this department (6). As worked out by the mutual companies in this valley, the system makes possible the storage of water in reservoirs located below the canals of companies owning them, for eventual delivery to lower canals in return for late-season use by the upper canals of river water to which the lower canals are entitled by their early direct-flow rights.

OREGON DISTRICT IMPROVEMENT COMPANIES

Oregon in 1911 authorized the formation of corporations of a special character, to be known as "district improvement companies," for the purpose of improving land by means of irrigation or drainage or both. The organization includes lands which are particularly described, but inclusion is voluntary on the part of the landowners. After execution of notice by all landowners, bonds may be issued or other obligations incurred which become liens upon all the land prior to every lien attaching subsequent to the date of recording the notice, except State, county, and school taxes. Assessments may be levied upon the land either ratably or in proportion to the benefits received, and each assessment or other charge becomes a lien against both crops and land. Authority is granted to condemn property by the power of eminent domain. The company has the usual powers of ordinary private corporations, and is managed by a board of directors.

The district improvement company was intended, in the first place, for use in connection with the breaking up and settlement of large land holdings, giving the owners control of the irrigation system so long as they held a majority of the acreage covered. Most of the organizations formed under this act cover only small areas, the average size of the 17 in existence in 1925 being 1,050 acres. Some have issued bonds, disposed of locally or traded to contractors for construction work.

This organization, although private and voluntary, is clothed with features which give it practically a semipublic status. The administrative procedure is less flexible and less direct than that of an ordinary mutual corporation, but is considerably simpler than that of an irrigation district. The land, rather than the share of stock, is the unit of rights and responsibilities of members, and is the security for obligations. So far as organization and annual license fees are concerned, the advantage is with the district improvement company over the ordinary corporation in case of small projects, but becomes less as the size of project increases.

For operation and maintenance purposes, the district improvement company offers no apparent advantages over the ordinary incorporated mutual company that are not more than offset by greater disadvantages. For construction purposes, it may be used effectively and advantageously in case of small projects. It has not been tested for large construction, but its superiority over the usual mutual corporation is questionable. In fact, in a section of diverse holdings and preexisting farm mortgages, the usefulness of the district improvement company as a borrowing agency would be materially impaired. The original purpose of this organization—to facilitate reclamation and subdivision of large land holdings—has been accomplished many times with the aid of the usual mutual company, as described elsewhere in this bulletin.

COMPANIES ON CAREY ACT AND FEDERAL RECLAMATION PROJECTS

Most Carey Act projects turned over to the settlers are being operated by mutual companies, which have proved very satisfactory for this purpose; Twin Falls Canal Co., Idaho, with about 5,500 water accounts and a cropped area of 203,748 acres, being the outstanding company in this group. "Water users' associations" were originally designed for Federal reclamation projects as well, but a change of policy has led the United States to make most of its operation contracts with irrigation districts, the Salt River Valley Water Users' Association, Arizona, being an outstanding exception. This association delivers water to 228,000 acres of land owned by approximately 5,700 shareholders and to an additional area of about 74,000 acres on a rental basis and under the Warren Act. Mutual companies on both Carey Act and Federal projects are formed under the general incorporation laws of the States. Distinctive features are the appurtenance of stock and water rights to the land, and the provision that assessments shall become liens upon both stock and land.

APPENDIX

CORPORATION LAWS

The corporation laws of some States are brief and those of others are quite detailed. While the respective provisions often vary considerably, there is more or less uniformity in the range of subjects covered. Those features running through the western laws that are of direct concern to mutual irrigation companies are briefly summarized in the following paragraphs.

LEADING STATUTORY PROVISIONS

ORGANIZATION

Persons desiring to form a corporation are required to execute an agreement called the articles of incorporation (sometimes the charter), which is filed with the secretary of State or other officer handling corporation affairs, as well as with the county clerk, and if in proper form is the basis of issuance of a certificate of incorporation from the State. The minimum number of persons who may so organize is often set at three, and less frequently at some other small number. Items which must be set out in the articles are listed in the statutes. The articles may be amended from time to time with authorization of holders of two-thirds or some other large fraction of outstanding stock and compliance with the same formalities as those attending the original charter. Filing fees are graduated in accordance with the amount of authorized capital stock. The life of the corporation is limited to a period of years, such as 20 or 50, but may be extended for similar periods indefinitely. The company must take a name which will not conflict with that of an existing corporation. Consolidation of two or more corporations is authorized by some statutes.

POWERS

A corporation has the power of succession by its corporate name; to sue and be sued by its corporate name; to make and use a common seal; to make contracts and incur obligations essential to the corporate business; to acquire and transfer property, extending in some cases to its own stock or to stocks and bonds of other corporations; to employ subordinate officers; to provide for the transfer of stock; and to make by-laws, rules, and regulations governing the conduct of its affairs.

CAPITAL STOCK AND STOCKHOLDERS

Certificates must be issued to holders of paid-up stock. Minimum limitations are placed by some statutes upon the amount of authorized capital stock and the amount which must be subscribed before starting business, although nonpar-value stock is generally permitted. Division of stock into classes is provided for. The total amount of stock may be increased or decreased under prescribed conditions, decreases below the amount of outstanding indebtedness being usually forbidden. Stock transfers are valid only when entered on the books of the company, except as between the parties to the transaction, the company being required to keep stock-transfer books for such purpose.

The extent of individual liability of stockholders for debts of the corporation usually is definitely provided for. In some States this is limited to unpaid stock subscriptions. California goes farthest in extending the stockholder's liability to his proportional part of all debts created while he holds stock.

Conditions surrounding stockholders' meetings, quorums, and voting powers are prescribed by the statutes. Special meetings may be called by the directors or by holders of a stated percentage of outstanding stock. Some States prohibit loans of corporate funds to stockholders. Stockholders may examine the books of the corporation and may call for reports.

OFFICERS

Directors or trustees are elected by and from the stockholders. The minimum number of directors is usually three; some States provide for a maximum, the highest being 21.

The president is one of the directors, elected by them or by the stockholders. Meetings of directors and quorums are provided for. Records of transactions and finances must be kept in proper form, and annual reports made to the State.

The office of secretary and often that of treasurer are provided for by statute. Subordinate offices may be created by any corporation.

BY-LAWS

All State statutes provide for the making of by-laws and some require this to be done within a short time after completing the incorporation. Stockholders have the ultimate power of making by-laws, and even where they have delegated the power to the directors they usually have statutory authority to make changes. Some statutes list subjects to be included in by-laws.

ASSESSMENTS

Assessments upon the paid-up capital stock may be levied for various purposes incidental to the proper management of the corporation. The statutes of some States give all corporations this power, whereas others permit its exercise only if provided in the articles of incorporation. Detailed procedure governing levies and collections is frequently included in the laws.

INDEBTEDNESS, INSOLVENCY, AND RECEIVERSHIP

Corporations are authorized to incur indebtedness for proper purposes and to pledge their assets. In case of insolvency and inability to function, provision is made for appointment of a receiver.

DISSOLUTION

Procedure is outlined for dissolution, both voluntary and involuntary. Voluntary dissolution is contingent upon payment of all debts. Involuntary dissolution may result from various causes, such as nonuse of franchises, failure to pay annual fees to the State, insolvency, or violation of law.

ARTICLES OF INCORPORATION

The test of whether a given matter should be included in the articles of incorporation is (1) whether the statute requires it, (2) whether it is necessary to safeguard the purposes of the company, and (3) whether it involves any vital interest of the stockholder. Obviously, statutory requirements must be followed. If the matter is not necessary on other grounds it should be left to the by-laws, for the articles may be amended only by following a definite statutory procedure and usually by paying a filing fee, whereas the by-laws may be changed by the stockholders as often as circumstances require without any recourse to the State. The articles of some mutual companies are unnecessarily lengthy. As a general rule the articles should be made as simple and brief as possible except as to the purposes and powers of the company, which should be stated fully and clearly.

Especial attention is called to the fact that actual preparation of the articles, particularly those portions relating to corporate powers and character of stock, requires the services of some one thoroughly familiar with the corporation law on the one hand and with the local situation on the other. In organizing a mutual company of even the simplest type, the fee paid to a competent attorney may represent a sound investment. For the purpose of this discussion, however, the principal features of articles of incorporation of a mutual irrigation company are grouped in the succeeding paragraphs.

PURPOSES AND POWERS

No statement is more vital than that of the purpose of organizing. To illustrate, an assessment levied by a Utah company for the purpose of building a storage reservoir was declared void on the ground that the articles of incorporation stated the object to be "to divert the water of a particular stream by means of certain canals and ditches already, at the time of the incorporation, constructed," and said nothing about storing water.¹² The articles of a mutual irrigation company should emphasize its mutual or noncommercial character; should state that its principal purpose is the furnishing of water for irrigation and domestic uses to the holders of its capital stock only; and to that end that it shall have the power to acquire water rights, rights of way, and other property by any lawful means, and to acquire, construct, maintain, and operate works for the storage, development, diversion, and distribution of water. Several States require irrigation companies to state the stream from which water is to be taken, point of diversion, and line of the ditch; but as a general rule in most States it is neither necessary nor desirable to particularize the canals, at least without adding a more general statement covering such additional irrigation works as may become necessary. Secondary purposes, such as producing and disposing of power or providing for drainage, should be stated. Where the statute authorizes, the company should be given power to acquire stock in other corporations of whatever character.

¹² Seely v. Huntington Canal & Agricultural Association, 27 Utah 179, 75 Pac. 367.

OFFICERS

Some of the States require the articles to state the number of directors and time of their election. If not required, however, it is preferable to leave this matter to the by-laws, for experience has led mutual companies on occasion to shift the date of election and to change the number of directors. It is desirable to state the manner in which directors may be removed from office.

CAPITAL STOCK

The amount of authorized capital stock, number of shares into which divided, and par value of shares must be stated. No-par-value stock may usually be authorized, but is seldom issued by mutual irrigation companies. If stock of different classes is to be issued, the respective attributes must be described. If stock is to be located upon land it should be so stated, with a requirement that the by-laws shall prescribe conditions upon which it may be severed and relocated upon other lands where such action is legally possible. The articles should bring out clearly that only stockholders are to be served with water.

The voting power of stock is fundamental, and if not limited by statutes should be prescribed in the articles.

ASSESSMENTS

The statutes usually give corporations the power to assess full-paid stock. Where this is not done the articles should provide for it, giving the corporation a lien upon delinquent stock and requiring the by-laws to provide the details of time and manner of making levies and collections. One of the essential features of mutual-company operation is the stock assessment.

INDEBTEDNESS

The power to incur obligations is incident to corporate existence. The articles should give the directors the power to borrow money for current expenditures and for emergency purposes within such limits and under such conditions as the by-laws may provide, requiring the major obligations to be first approved by the stockholders.

STOCKHOLDERS' LIABILITY

The stockholders' liability is another matter that the statutes usually make mandatory, and that should otherwise be stated specifically in the articles.

BY-LAWS

Certain States require the preparation of by-laws within a definite time after completing incorporation. The articles should provide for the making and amending of by-laws. Although some companies leave this to the directors and are satisfied with the plan, it is properly a function of the stockholders.

REFUSAL OF WATER DELIVERY

The articles should give the directors specific authority to withhold the delivery of water to a stockholder in arrears in his payments of tolls or assessments.

MISCELLANEOUS DATA

The statutes require the articles to contain various informatory statements, such as name of the corporation, principal place of business, names and residences of incorporators, amount of stock subscribed by each original subscriber, term for which the corporation is to exist, not exceeding the statutory limit.

BY-LAWS

"A by-law is a permanent rule of action for the government of the members of the corporation in the conduct of the corporate affairs" (13). It follows that the purpose of a by-law is neither to declare a basic right nor to formulate a rule of operation detail, but rather to govern the relations between stockholders and officers and to hold the officers to certain policies and lines of procedure in handling the company's finances. Enactment of by-laws is one of the few functions required of stockholders—a function that they as owners of the corporation are fully justified in reserving to themselves.

The laws of certain States enumerate matters which may be included in by-laws rather as a guide than as a mandate.

By-laws of mutual companies will ordinarily include provisions on the following subjects, where the State statute does not itself provide for them or for their inclusion in the articles of incorporation.

STOCKHOLDERS' MEETINGS AND ELECTIONS

Time and place of holding the annual meeting. How special meetings may be called; that is, by the president, or by a majority of directors, or by the holders of a fraction of the outstanding stock. What shall constitute a quorum. Details of balloting; manner of voting by proxy; whether cumulative voting shall be permitted.

DIRECTORS

Number of directors. When elected and for what terms; notices required. How and by whom vacancies are to be filled, including vacancies created by removal of directors from office. Compensation. Bonds.

Time and place of directors' meetings, and quorums. How special meetings may be called.

Duties of directors; their sole responsibility for managing the corporate business; auditing of accounts; signing of vouchers; annual reports, and when and by whom special reports may be required; whether duties may be delegated to committees; power to authorize severance of stock from land on which located and relocation on other lands, with conditions under which this may be done; making of rules and regulations governing distribution of water to stockholders, and requirement of stockholders' compliance; point at which water shall be delivered to the user—that is, at the main canal outlet,

or at each farm unit, or at some intermediate point; details of withholding water pending payment of delinquent assessments; limit within which obligations may be incurred for operation and maintenance purposes; authority of directors to exceed such limit in case of emergency; submission to vote of stockholders of question of incurring major nonemergency obligations.

OTHER OFFICERS AND EMPLOYEES

Officers other than directors, such as president, vice president, secretary, and treasurer; qualifications; how and when elected; duties; compensation; bonds.

Directors to have sole authority to employ and discharge agents and fix their compensation, including a manager responsible only to themselves.

STOCK CERTIFICATES

Essential contents and signatures. Rules regarding transfer of certificates, hypothecation, and replacement of lost certificates.

LOCATING STOCK ON LAND

Where authorized by the articles, procedure for effecting location on land; power of directors, on application of a stockholder, in their discretion to authorize severance of stock from land on which located and relocation on other lands; provision that sales of stock by company for delinquent assessment shall constitute a severance.

ASSESSMENTS

Details of procedure for levying and collecting assessments upon full-paid stock, including contents of notices; limit of a single assessment; purposes.

Procedure for selling stock for delinquent assessments. Alternative procedure for bringing suit to collect.

Authority of directors to provide for tolls in place of assessments, and to make them payable in advance of water delivery.

PENALTIES

Maximum penalties for violation of by-laws.

RULES AND REGULATIONS

The peculiar function of rules and regulations is to cover dealings between company and consumers, who in case of a mutual irrigation company are necessarily stockholders. These rules are designed to give effect to the directors' policy in managing the irrigation system and in delivering water to the users, and therefore emanate from the directors and not from the stockholders. They involve operation details with which the stockholders should have no concern except as consumers of water, and in that capacity they should submit to the judgment of the directors whom they have chosen.

Contents of rules and regulations have been discussed in other publications of this department (1, 8).

AGREEMENTS OF UNINCORPORATED ASSOCIATIONS

A small organization needs no elaborate agreement. In fact, the simpler it may be made, the better, provided it contains clear statements of the purpose of organizing and of the respective interests, duties, obligations, and rights of members. With larger organizations more detailed articles of association may be drawn up to include periodical holding of meetings, designations and duties of officers, provision for making by-laws and rules and regulations, possible division of the interests of members into shares and preparation of share certificates, and such other provisions as may be incidental to the operation of larger enterprises. Similarly, by-laws and rules may be made to suit the occasion.

ADMINISTRATION

PUBLIC SUPERVISION

Mutual irrigation companies are subjected to active supervision by public authorities through the various corporate securities acts—the so-called blue-sky laws—which apply in greater or less degree to their securities. For example, the California law applies to mutual irrigation companies, incorporated or otherwise, and provides that no company, except in case of sale for a delinquent assessment, shall sell or offer for sale any security of its own issue until it shall have secured a permit to do so from the commissioner of corporations. The permit, if issued, “does not constitute a recommendation or indorsement of the securities permitted to be issued,” but is not granted until the commissioner is satisfied of the absence of fraud and may be altered or revoked at any time. Exemptions from the operation of the blue-sky laws are granted by certain States; for example, by Nebraska to corporations whose total securities do not exceed \$25,000; by South Dakota to domestic corporations organized without capital stock and not for pecuniary gain; by Texas to corporations organized under the Federal reclamation act.

CONTROL BY STOCKHOLDERS OR MEMBERS

The functions of stockholders in mutual-company administration are relatively few, but very important. They must elect directors, and may remove them from office if authorized by the statute or the articles, or possibly by the by-laws. They must make and may amend or repeal by-laws, although in some States they may delegate this power to the directors. Such radical steps as consolidation with other corporations, conveyance of all corporate assets, or voluntary dissolution, can be taken only with their consent. All amendments to the articles of incorporation, including increases or decreases of the capital stock, require their prior approval.

Whether stockholders have the sole right to authorize indebtedness apparently depends altogether upon the State statute and the articles of incorporation. Many mutual companies do require prior authorization by stockholders—a procedure which appears to be amply justified if limited to incurring new indebtedness for extraordinary purposes.

Colorado requires assessment levies of irrigation companies to be authorized by the stockholders, unless the latter should fail to make the authorization by April 1 in any year. Some companies in other States have provided in their articles for the stockholders' prior approval. If there is any choice in the matter, however, determination of the amount of assessments for all ordinary purposes, such as operation, maintenance, replacements, improvements, and payment of interest and principal of outstanding obligations, should be left to the board of directors. After all, this is really a function of management, and stockholders who are required to pass upon such matters necessarily have to depend largely upon information furnished by the directors and recommendations made by them.

Steps taken to authorize such an assessment may be illustrated by reference to the stockholders' meeting of The Fort Lyon Canal Co., Colorado, held December 8, 1924. In the course of business the chair appointed a committee on assessments, which at the same meeting made a report recommending an assessment for 1925 for various specific purposes totaling \$1.50 per share, payable in three equal installments; and recommending that the secretary be instructed to keep these funds in certain designated accounts. The report of the committee was adopted by the meeting.

Mutual companies rarely seem to become involved in county politics, partly because they are nonpolitical organizations and have no official relations with the county commissioners or supervisors not had by other private corporations, and partly because most of them cover relatively small areas.

ANNUAL MEETINGS

The stockholders' annual meeting is a fixed feature of administration. In mutual irrigation company operation the time of holding this meeting is quite important, owing to the sharp break into seasons and to the difficulty of securing attendance of farmers when they are otherwise busy. The annual meeting, therefore, will ordinarily be held following the close of the irrigation season and after a sufficient time has elapsed to permit the management to consolidate operation and financial data and to prepare recommendations. January and February have been generally found most convenient; summer meetings have been tried and found impracticable. Stockholders in lateral companies, of which there are many examples in northeastern Colorado, find it desirable to hold their meetings prior to that of the parent company in order to settle matters of local concern for possible presentation at the main company meetings.

Business ordinarily transacted at annual meetings of irrigation companies includes reading the minutes of the last meeting, hearing the financial and operation reports, discussing the state of affairs, passing upon such matters as come under the stockholders' control, and electing officers for the following year.

The interest shown by stockholders in the administration of affairs varies widely. In many places it is a common complaint that quorums are difficult to obtain at the annual meeting without resorting to the use of proxies—a condition which indicates satisfaction on the part of the water users but which is discouraging to those who wish the

interest kept up. Some companies get along for years without holding stockholders' meetings. For example, the secretary of one small company in southern California—a man who had held office for 32 years—stated that he could not recall offhand the year of the last meeting. The directors of that company appoint new members to fill vacancies, meet once a year to levy the assessment, hold not more than one additional meeting during the year, and leave everything else to the single ditch tender and the secretary. At the other extreme are those companies—and there are many of them—whose stockholders not only turn out in force at the annual meetings, but make them a convenient place for registering complaints over the operation of the system and for discussing trivial matters that never should have gone beyond the superintendent or the board of directors. In a large number of companies the stockholders ordinarily show only a mild interest in the annual meetings, but make a point of attending when matters of unusual interest are to be discussed or when a fight over the directorship is in prospect.

The mutual irrigation company is a very democratic institution, and its annual meeting is an open forum at which any member may express his views as to operation policies. In small companies all members are familiar with what is going on, while in the larger organizations the average individual is not in such close touch; consequently discussions at the annual meetings of large companies are more apt to be confined to leaders of opposing factions. With such an extensive project as that operated by Salt River Valley Water Users' Association, the form of government more nearly resembles that of a republic in that in place of holding a general stockholders' meeting, a legislative body known as a "council" and consisting of 30 members, is elected from districts to make by-laws, approve propositions to be submitted to the electors for ratification, and to meet periodically with the board of governors in joint session for reviewing and discussing the general business of the association.

BASIS OF VOTING

Each stockholder is entitled to vote at any election in that ratio which the number of shares standing in his name bears to the total number outstanding. Ordinarily one vote is allowed per share. Companies with different classes of stock sometimes give the privileged class or classes the higher number of votes per share.

CUMULATIVE VOTING

The right of each stockholder to cast as many votes in the aggregate as he holds shares of stock, multiplied by the number of directors upon whom he is voting, and to cast the whole number for one candidate or to distribute the votes as he chooses among more than one candidate—called "cumulative voting"—is specifically authorized by the laws of a number of States and is practiced to some extent in elections of mutual companies. This practice makes it possible for an organized minority to elect a representative to the board of directors and thus prevent the majority from choosing the entire board. For example, if three directors are to be elected by the holders of 10,000 shares, the total number of votes to be cast will be $3 \times 10,000$ or 30,000

votes. Minority holders of 3,000 shares may then concentrate their total of $3 \times 3,000$, or 9,000 votes upon one candidate and insure his election, inasmuch as the remaining 21,000 votes will not be sufficient to elect three candidates over the recipient of the 9,000 votes. It is at once apparent that a minority may even elect a majority of the board of directors where the holders of the majority stock are off guard and scatter their votes, as was done in a Colorado company where the water users at the lower end of the canal elected three out of five directors and controlled affairs for a time to their own advantage. Of course the answer to this is that the majority have the same opportunity, and must themselves organize if they expect to control the board.

MANAGEMENT

DIRECTORS

The sole responsibility for managing the company is placed upon the board of directors. Not only is this an established principle of corporation law and practice, but it is carried out fully in incorporated mutual irrigation companies and in many unincorporated associations as well. The board is charged with formulation of policies, and employs agents to carry them out; makes contracts; usually levies assessments; incurs obligations; approves expenditures; and makes rules and regulations for operation of the system and distribution of water to the users. The weight of this responsibility may be gauged by the great importance of water in management of an irrigated farm, and the necessity for having it delivered at the proper time, in the proper amount, and at the lowest cost consistent with efficient operation. This does not mean that the board is to spend its time on administrative or technical details; but it does mean that it must choose its agents wisely and keep sufficiently informed to know whether they are producing results.

Small boards of directors are desirable for small companies. Three is of course the minimum, and is sufficient for many situations, although five is a pronounced favorite. Seven is too large, for it makes an unwieldy board and increases the difficulties of securing quorums and concerted action. Some of the large companies, particularly those whose affairs are intricate and include other than purely irrigation matters, have as many as 11 directors, choosing them in some instances from different districts in order to afford geographical representation. As a general rule large boards tend to become less managerial and more legislative or advisory to a president with enlarged powers, due to the practical impossibility of all members keeping in touch with all of such a company's affairs. With even a large mutual company, however, there is little need for a board of more than five members if its sole concern is operation of an irrigation system and if its financial affairs are not involved.

The best use of committees goes with the larger boards, particularly those called upon to render decisions in complicated cases. On the other hand, there is little point to committee work with small boards. A particularly cumbersome feature of small company operation is the executive committee, composed, for example, of the president and two directors. It is cumbersome, because in practice the committee must pass upon too many details of management that

do not involve policy and that could be left more satisfactorily to the president and superintendent. For example, until recently it was the duty of the executive committee of Richfield Irrigation Canal Co., Utah, to order water in and out of the canal. Standing committees were tried by The Fort Lyon Canal Co., Colorado, with a board of five directors. There were five such committees—legal, finance, operation, construction, and supplies and records—each composed of two directors and an officer of the company concerned with the committee's particular business. The arrangement did not work out well, because of inertia, lack of proper detailed information on the part of director members, and unnecessary delays occasioned thereby, and has been abandoned in favor of appointment of temporary committees to act in individual cases.

The time of holding directors' meetings is invariably stated in the articles of incorporation or by-laws, but in practice is more of a guide than a requirement. That is to say, in a great many companies the meetings are held just as often as there is any business to be transacted, and only then.

Terms of office of directors are usually a statutory matter. In some States, companies are permitted to elect directors annually for three-year terms. This has proved to be good practice in a number of cases where tried, for the selection of one or two directors every year, with two or three hold-overs, tends to insure continuity of policy and gives a director more time to learn his duties. The occasionally voiced objection that it prevents an incompetent board from being removed in toto can be overcome by providing in the articles for removal of directors by the stockholders—an action easily taken but which will seldom actually come about without good reason.

Much depends upon the caliber of the directors, which in turn depends upon the material from which they must be chosen. Necessarily there is as wide a range in the quality of management as in the character of irrigation communities, varying from inefficient and extravagant to wise and careful, and from backward to ultraprogressive. In many organizations it is difficult to find members especially fitted for the duties of a director, and in such case the happiest choice will lie with directors of integrity and public spirit who are willing to choose a competent manager, pay him what he is worth, and let him operate the system in his own way. Companies that can call efficient business men to the directorate are particularly fortunate. Many examples of excellent management are to be found among the mutual water companies of southern California, and among the larger mutual companies in several other States; in which there are boards of directors of high-class farmers, bankers, and business and professional men, serving at nominal compensation, not seeking the office as a political perquisite, but frequently being retained so long as they are willing to devote their time and services to the interests of the company.

OTHER OFFICERS

The president and vice president are usually chosen from the board of directors. Whether the choice lies with the stockholders or the directors makes little difference except in those cases where the president is invested with unusually large managerial powers and duties,

in which event the stockholders may wish to choose the incumbent themselves.

The president gives more time to corporate affairs than do the other directors. He has routine duties to perform, such as signing stock certificates, contracts, and other corporate instruments, and sometimes the approval of vouchers and the signing of warrants. He is often vested with the general supervision of affairs and paid a salary.

The secretary and treasurer are appointed by the board, the offices being frequently consolidated. The secretary is seldom required to be a director, and wisely so, for he must have clerical qualifications and must often devote most or all of his time to the job.

SUPERINTENDENT

Smoothness of operation and satisfaction on the part of water users are dependent primarily upon the superintendent. The business of running an irrigation system is a highly technical one requiring specialized training and experience, executive ability, and a disposition to get along with the farmers. In some organizations the president or the secretary is the manager and field superintendence is handled by a water master.

Consideration of methods used by some outstanding mutual irrigation companies shows the decidedly beneficial effect of employing a competent manager or superintendent and allowing him to use his own methods and to employ his own subordinates in carrying out the policies formulated by the board of directors. This is particularly true in organizations with complicated problems to solve.

Allowing the superintendent to make expenditures only on claims approved by the board of directors is a rather widespread practice. This arrangement may often be locally desirable, but the more businesslike procedure involves preparation of an annual budget by the superintendent, revision by the board in the light of their knowledge of the farmers' circumstances and attitude toward company finances and their own responsibility in the matter, and blanket authorization to the superintendent to incur expenditures and approve claims for payment in conformity with the budget without further recourse to the board, except of course in case of emergency.

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