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GOVERNMENT SUPERVISION OF DAM CONSTRUCTION.

During the recent flood disasters in the United States at least one dam was reported as having given way, and there were many cases of panics and excitement in numerous towns over reports of the collapse of others. To what extent such panics and fears are justifiable we do not know, but there have been instances in the past in the United States of careless dam construction, disastrous to human life, which partly justifies a distrust by the people of such engineering structures. It all reflects to a certain extent on general engineering, and should be prevented. We have government supervision of buildings, etc., for the safety of the people. Why not —and more so—have it for the design and construction of dams if they endanger in their failure human habitations and life? An instance of what such supervision could have prevented was the Austin dam failure, which many of our readers will remember took place in the United States in 1911. Investigation after the accident brought out the facts that a portion of the dam which drawings showed thirty feet thick at the base was only twenty feet thick; that the existence of a cut-off wall or key, which was supposed to be four feet thick and extend four feet into bed-rock across the whole upstream face of dam could not be found.

Incompetent engineering in the above case and panics in the recent flood disasters in the United States should lead governments to adopt means of exercising skilled engineering supervision over dam construction. Ordinary static stresses in dam design are easy enough to figure, but the foundations and joints bring in elements of doubt that require to be met by liberal factors of safety in design. There should be absolutely disinterested inspection to see that improper economical risks are not taken for the sake of financial questions involved.

Such accidents and panics reflecting on the profession are not desirable, and engineers should be the first to applaud competent engineering and government supervision that would make impossible mistakes which endanger human life. Such a course serves the twofold purpose of increasing the people's confidence in their safety and preventing possible disasters which reflect on the ability and honor of the whole engineering profession. It would still further safeguard engineers in as far as when pressed for reasons of economy to lower factors of safety in design they would know it was impossible, due to government inspection.

UTILIZING THE SUN'S RAYS FOR POWER PURPOSES.

Most engineers have listened with interest at some time or other to tales of the practicability of gathering and utilizing the heat and intensity of the sun's rays in tropical countries for power purposes. Recalling the ancients and fairy tales of wonderful sun-glasses that were going to burn up ships and wreak destruction on those who ventured to oppose them, further memories come of years that have passed, with innumerable engineers longing at times to make a servant of the intense tropical heat of old "King Sol." We dwell on the fruitlessness of it all; probably recall that, while scientists in laboratories in a small way have successfully experimented, yet no practical results have ever followed, and, consequently, we are inclined to dismiss the possibilities of the scheme as hopeless.