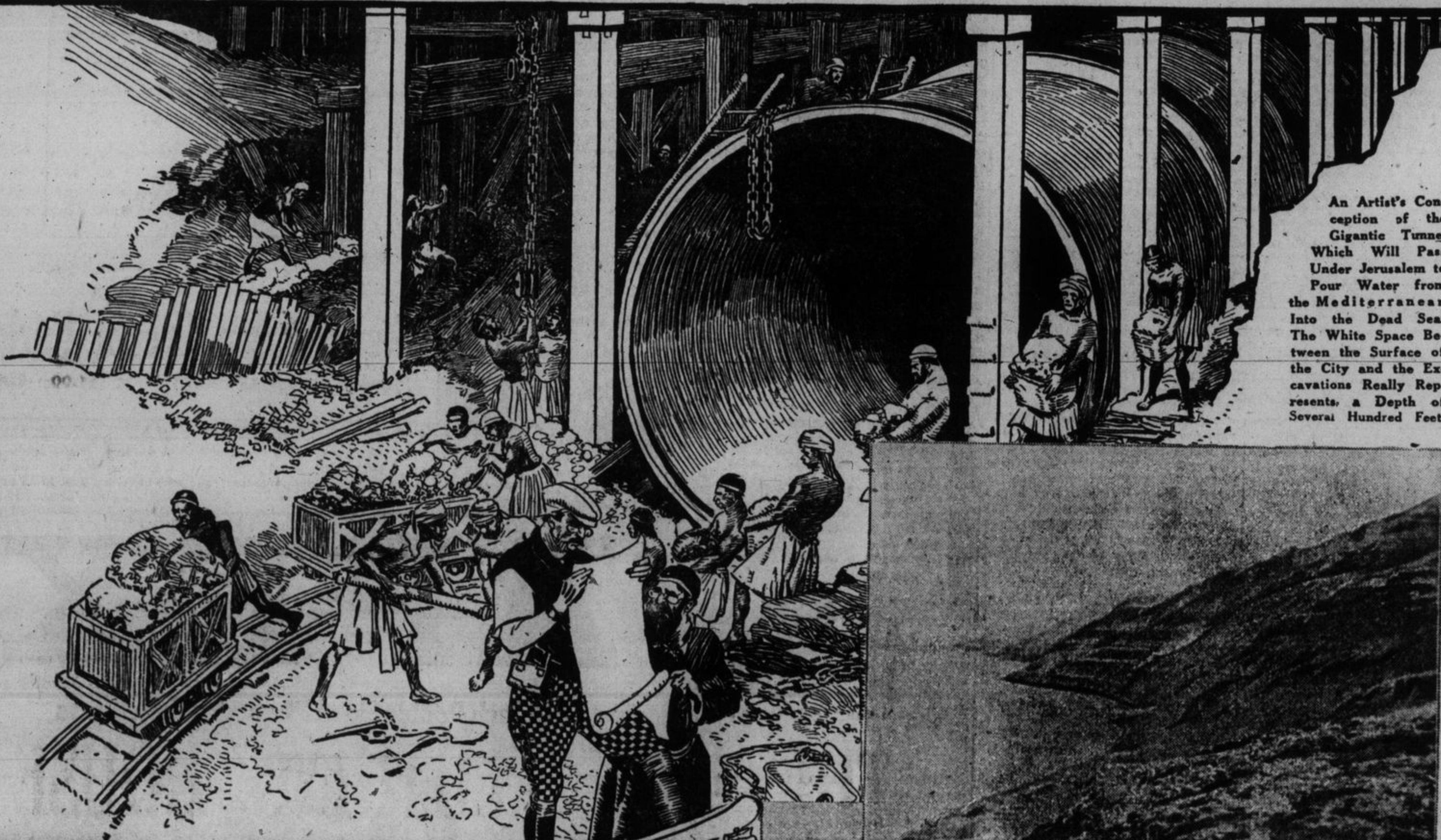
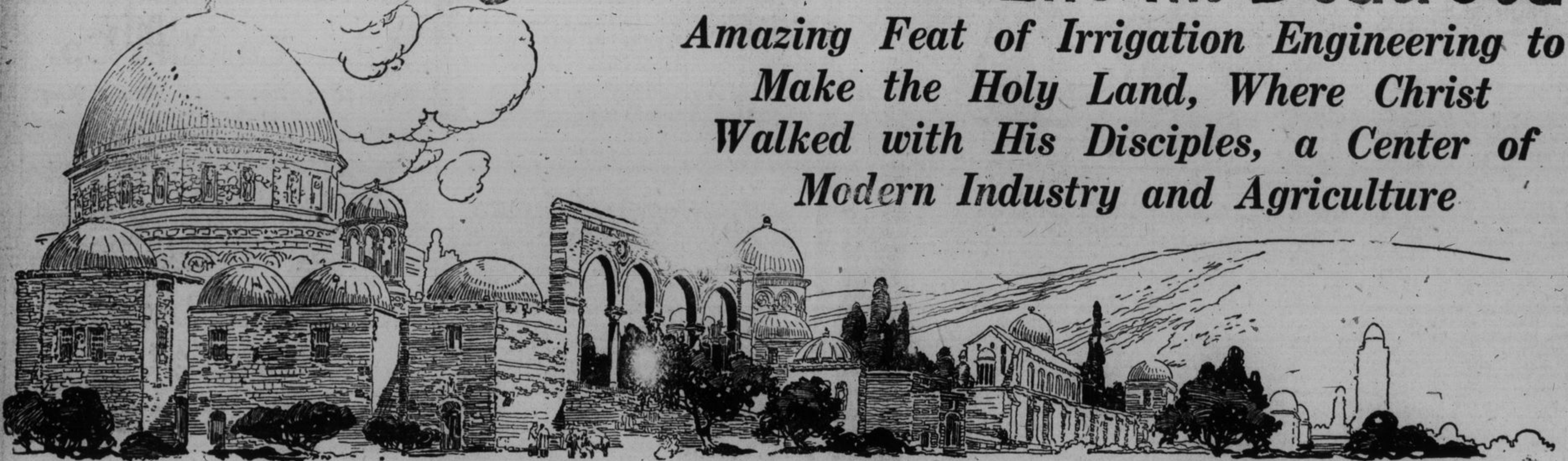


A Tunnel Under Jerusalem to Put Life Into The Dead Sea

Amazing Feat of Irrigation Engineering to Make the Holy Land, Where Christ Walked with His Disciples, a Center of Modern Industry and Agriculture



An Artist's Conception of the Gigantic Tunnel Which Will Pass Under Jerusalem to Four Water from the Mediterranean into the Dead Sea. The White Space Between the Surface of the City and the Excavations Really Represents a Depth of Several Hundred Feet.

than 5,000 feet, in which the Dead Sea and the Jordan River valley lie is part of a great geological "fault" extending from Antioch, in Syria, southward between the Lebanon mountains and the range of which Mount Hermon is the summit, and onward through the Jordan valley and its continuation to the Gulf of Akaba and the Red Sea.

The earthquakes which still occur from time to time in the region of the Dead Sea are but the last shivering movements of the earth's crust which have been in progress here since the middle of the Tertiary period (long before man came on earth), and which in their total result have produced the depression. It is as if a vast block of solid rock fifty or sixty miles wide and hundreds of miles long had broken off from the main mass extending eastward, and thus had created the gaping crevasse which separates Palestine proper from the plains of Moab.

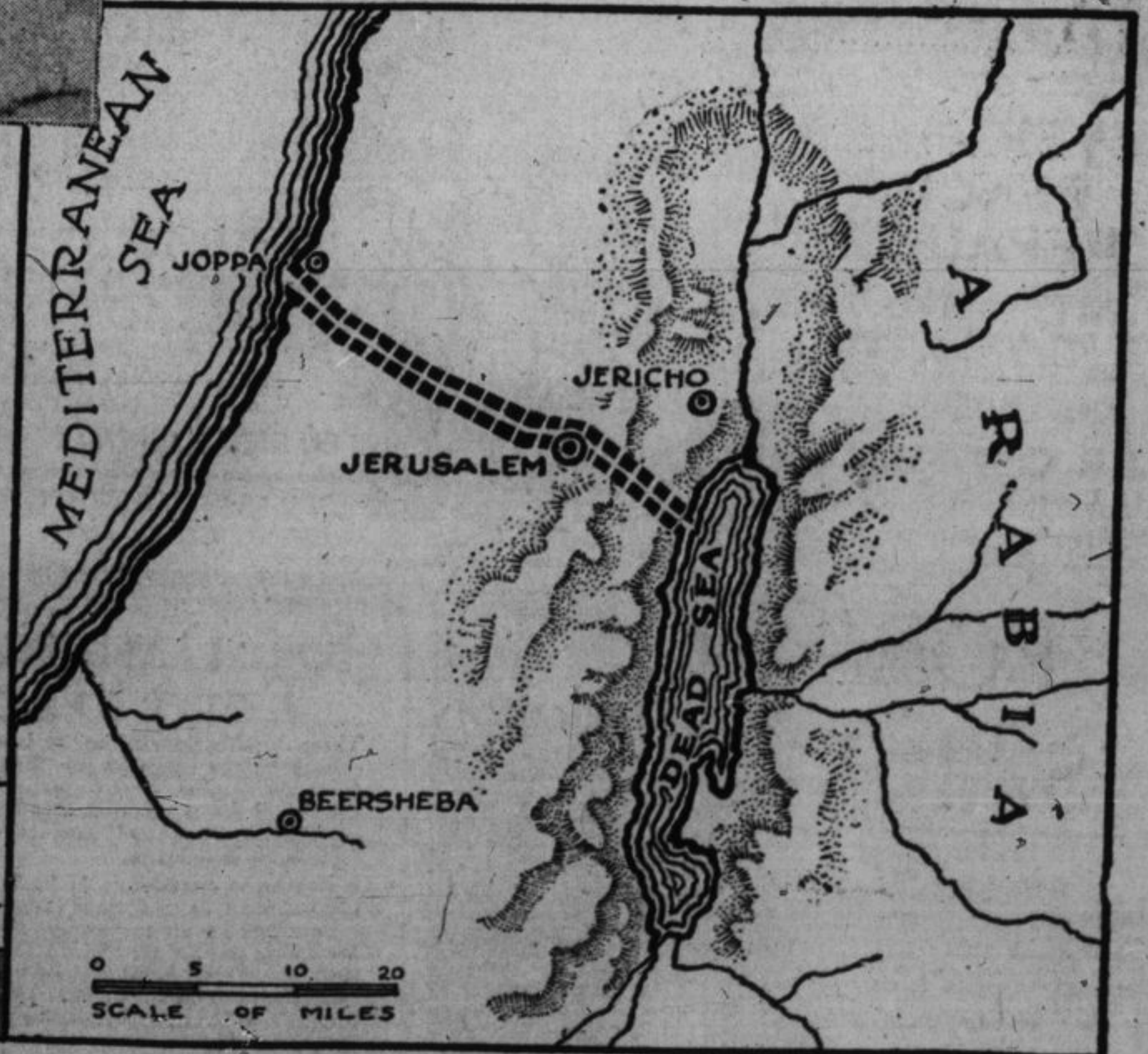
This ground is of especial interest to Bible students for it is closely connected with the story of Lot and Abraham in the Old Testament. Those who know their Book of Genesis will remember that when the herdsmen of Abraham quarrelled with those of his nephew Lot, Abraham advised that they separate and gave Lot the privilege of choosing where he would go. Lot went to Sodom. Warned of the impending doom, he hastened to leave, warning his wife and children not to look back, but Lot's wife did look back and was turned into "a pillar of salt."

The vivid description of the destruction of Sodom and Gomorrah, where it is said the brimstone was rained down upon these cities and that the scene was "as the smoke of a furnace," is borne out by the fact that there are still volcanoes in the neighborhood and many hot springs, showing that the inner fires are not very far from the surface.

All this happened something like forty centuries ago, for Abraham lived in 2100 B. C., and it is quite remarkable that now the very site of the destruction of two of the great cities of ancient times will be the centre of a project to bring back prosperity and agricultural wealth to the country.

The Mediterranean Sea is really an inland ocean, of enormous size, extending from the Straits of Gibraltar on the west to Asia on the east, and covering many thousand miles of surface. It can easily spare millions upon millions of tons of water, for it is not only fed by the great rivers of Europe, Asia and Africa, but is connected directly with the vast Atlantic Ocean, and consequently its waters are inexhaustible.

Map Showing Subterranean Route of the Proposed Gigantic Tunnel.



Ferry Overlooking the River Jordan and Old Lake Deposits at Ed-Damiah, and, Above, Shoreline of Dead Sea Looking North.

grown in large quantities in ancient times. In order to understand precisely what will occur when the waters of the Mediterranean pour into the Dead Sea by the million tons daily, we must consider the great valley of the Jordan, which the Arabs call the "Ghor." This depression of more than 5,000 feet, in which the Dead Sea and the Jordan River valley lie is part of a great geological "fault" extending from Antioch, in Syria, southward between the Lebanon mountains and the range of which Mount Hermon is the summit, and onward through the Jordan valley and its continuation to the Gulf of Akaba and the Red Sea.

By REV. CLIFTON H. LEVY.

WORD comes from Port Said that the Dead Sea, in Palestine, is to "be made alive again" after countless ages, by an amazing feat of modern engineering.

First plans have been completed, under the supervision of British authorities, for the construction of a tunnel which will traverse the entire Holy Land underground, through which the waters of the Mediterranean will pour into the Dead Sea and bring it to life once more, as it was in ancient prehistoric times.

It is believed the project will be the means of giving life and wealth, by irrigation, to many miles of arid, desert territory. In addition, by the construction of turbines at different points along the path of the tunnel, electric power for civic and commercial uses will be furnished to the whole of Palestine.

The tunnel will run directly beneath Jerusalem, and, when it is completed, visitors may expect to see electric lights and street cars operated by its power in the Holy City.

It is a gigantic problem from the engineering point of view, for it will mean the construction of a subterranean viaduct some thirty-seven miles long, with a "fall" of more than 1,000 feet.

The Dead Sea, which is probably the greatest natural wonder on the face of the earth, lies 1,285 feet below the level of the Mediterranean Sea, and in some places is 1,300 feet deep. The River Jordan is the chief source of its water, but many smaller brooks pour into it, so that something like six million tons of water fall into it every twenty-four hours. While the water that pours into it is largely fresh, the excessive salt of its bed and surrounding cliffs is absorbed so rapidly that the water becomes 25 per cent salt, a thick, brackish solution, which prevents any breathing thing from living in it, and even destroys vegetation.

When the water from the Mediterranean pours in, the Dead Sea will spread widely out over surrounding territory, and the total volume of its water will be so great that the percentage of salt will be practi-

cally no higher than that in the ocean.

The engineers who plan the revival of life in and around the Dead Sea realize that their task is an enormous one, but they do not believe they will encounter any problems which modern machinery cannot solve.

The Sion Tunnel, which runs under the Alps between Switzerland and Italy, was dug at a very high elevation through solid rock, and had to be dug with far greater care and at greater expense than will be necessary here. The engineers will surely encounter some rock, but they believe that most of the tunneling will be "easy going."

The fall of 1,300 feet will make it possible to construct power stations, beneath ground, in which the water will fall over turbine wheels, through which enough electric power can be generated to run all the electric lighting plants, factories and railways in southern Palestine.

As the tunnel will run directly under Jerusalem itself, which lies on a line with the northern end of the Dead Sea, there will be no loss in transmitting the power to that central point.

The surface of the earth will not be disturbed at Jerusalem, nor will any of the sacred buildings or shrines be endangered, for Jerusalem is above the sea level in the Judean mountains.

It is believed that the climate itself around the Dead Sea will be profoundly affected by the change. The evaporation of the fresher water will be more rapid, the surface of the sea will be greater when it spreads out over surrounding plains, and consequently the local rainfalls will be more abundant.

There is no danger that the spread of the Dead Sea will trend westward overflowing any of the cities or sacred places of the Holy Land. High cliffs rise westward to 4,400 feet. Other cliffs rise eastward to 4,400 feet. The waters, therefore, will "back up" toward the north along the valley of the River Jordan, and will spread out southward, covering a wide expanse of what is now sandy desert.

There will not be any danger of flooding too widely the valley of the Jordan, except at a few low-lying points, and then for a short distance only, as most of the Jordan Valley is a huge crevasse, or "fault" as the geologists call it, in which lay a narrow lake more than 200 miles long in prehistoric days.

This project promises much for the land, even north of Jerusalem, for with suffi-



Sectional View of Proposed Tunnel Route, Showing 1,300-Foot Drop.

cient power and an increased rainfall, irrigation would be made easier, and in some cases would cease to be necessary. Once more the Promised Land would "flow with milk and honey" for the greatest lack of agriculturists has been water, due to the arid nature of the soil on the level lands and to the denudation of the soil on the slopes by the cutting down of the forests.

Palestine proper is usually considered to mean the land west of the River Jordan, but there is a once-fruitful table land lying east of the river, formerly the "Land of Moab," where wheat was

grown in large quantities in ancient times. In order to understand precisely what will occur when the waters of the Mediterranean pour into the Dead Sea by the million tons daily, we must consider the great valley of the Jordan, which the Arabs call the "Ghor." This depression of more than 5,000 feet, in which the Dead Sea and the Jordan River valley lie is part of a great geological "fault" extending from Antioch, in Syria, southward between the Lebanon mountains and the range of which Mount Hermon is the summit, and onward through the Jordan valley and its continuation to the Gulf of Akaba and the Red Sea.

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