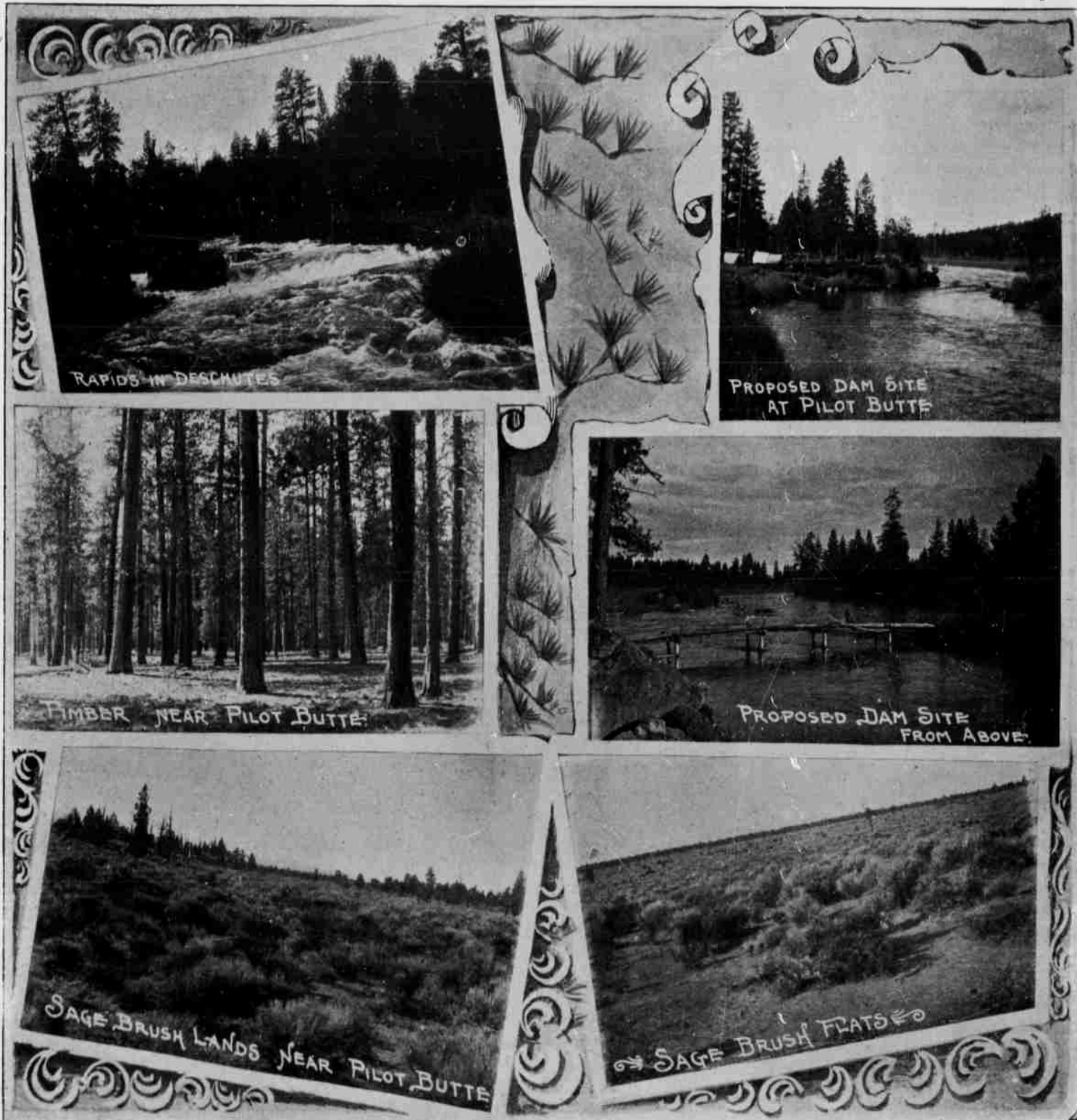


### THE POSSIBILITIES OF CROOK'S DESERTS UNDER IRRIGATION.

That part of Oregon lying east of the Cascade range, generally known as Eastern Oregon is from 1,000 to 5,000 feet above the sea. It is possessed of a bright, dry, semi-arid climate, unsurpassed for healthfulness, and wholly different from the rain, fog and mud, of Western Oregon, contemptuously styled by the residents of the dry district as the "Web-foot country." Oregon's settlement followed the water

Its upper course lies through a magnificent belt of pine timber, especially valuable for finishing and box lumber, being much lighter than the fir of Western Oregon. Near the old Farewell bend (the site of the new town of Pilot Butte,) it emerges from the timber on to the so-called desert country, and thenceforth flows to the Columbia through a canon far below the surface of the country. The slope of the country toward the north is comparatively uniform, averaging 20 to 25 feet per mile. Transversely the slope from the mountains to the river is rather sharp, but on the

the greater the melting of snow on the perpetually covered peaks. No other stream in the world used for irrigation can present such remarkable features. The volume of water at Pilot Butte ranges from 2,500 to 3,500 cubic feet per second, ample to irrigate in this section from 300,000 to 500,000 acres, and the perpetuation of supply is guaranteed for all time by the recent establishment of the Cascade forest reserve. The deposits of lava and deep canons render it difficult and expensive to divert water from the stream. Heretofore the great cost has precluded such undertak-



ways along its western, northern and eastern sides, leaving the interior almost unknown, because of its inaccessibility, and the lack of transportation facilities. It has been given over mainly to stock-raising; but year by year the encircling settlement has been drawing in closer and closer until now "the oud is full and ready to burst," and this immense, rich, and healthful district about to open up to settlement. The Deschutes is the largest interior river. It heads in the perpetual snow peaks on the east slope of the Cascades, flows northerly some 200 miles parallel with the mountains, thereby justifying its name.

east side it is quite gentle. This stream possesses peculiar advantages from an irrigation standpoint, in the uniformity of flow of a large volume of pure, soft water, the variation between its highest and lowest stages seldom exceeding twelve inches. This is explained because of its velocity, its freedom from ice, the dense forest shading the snow in the timbered district from sudden melting in the spring, the natural drains, caused by the lava beds holding back the spring floods, and acting as reservoirs which automatically feed out water when the river begins to fall in the summer, and because the hotter the summer sun

ings, but irrigation has been tried in a small way along some of the branch streams or springs in the foothills and on occasional small patches in the Deschutes and Crooked River bottoms. The rivulets demonstrating beyond peradventure the desirability of operating upon a large scale. Owing to the nature of the country there are but three or four points at which it is feasible to divert the waters of this stream in quantity, and already several projects are on foot. The Deschutes Consolidated Irrigation Co. has commenced operations in the vicinity of Pengra, at one of the easiest points for diversion, and in a country well