S. B. THESIS

DESIGN FOR A FRONTIER BRIDGE BETWEEN THE U. S. AND MEXICO

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Several years of unsettled conditions between the United States and Mexico have at last resulted in a state of neutrality and friendly relations, making desirable further means of communication between the two countries. As a result it has finally been agreed upon that a new bridge shall be built across the Rio Grande; the work to be undertaken by the United States and according to their plans.

This bridge apart from its impressive scale and monumental character is to serve a two-fold purpose, first that of an hospitable and inviting highway between the two countries in times of peace; secondly that of a protective post in case of possible troubles. Accordingly, while the general effect is to be one of friendliness shown in the spacious open place, cool shaded arcades and broad stairways, there will also be a sterner note seen in the guard towers, big gateways, and solid substructure of the whole.

The site chosen is one where the river is about 400 feet wide, flowing between rather steep hill sides. Walls built high above the ordinary
water level will guard against its sudden risings.

The bridge itself is generous in width; its walls of reinforced concrete covering a steel construction of four great trussed arches which cross the river in a single span. A heavy band supported by deep brackets runs across the top, forming a rail for those on the bridge, otherwise the surface is unbroken.

At each end of the bridge there stands a great monumental archway; these are the dominant features of the entire scheme. Built of concrete, solid and enduring, with plain unbroken surfaces crowned by a heavy band of ornament and arched openings, their towers capped by brilliant tiled domes—these two archways rise conspicuously above the low buildings of the surrounding country; nearer the center of the bridge two octagonal guard houses keep watch over the travel and before these stand ornamental flatstaffs showing the Country's colors.

On the Mexican shore, the bridge widens out to form a sort of open plaza about which runs a shady arcade; the center of each wing being marked by a decorative bell-head, around which the natives gather to sell their wares. From this space there go down two great flights of steps leading to
the highway which runs along the banks of the river and under a separate archway of the bridge. A boat landing at the foot of one stairway corresponds to a similar landing on the opposite shore. Further inland another main road runs under the bridge parallel to the line of the river. The road across the bridge itself leads directly out into the Mexican Country where there is a scattering of native houses and towns.

On the opposite bank, the United States—the design is worked out on a much larger scale, and here the bridge leads not into the country but into the center of a military post and settlement. Accordingly, the bridge widens out beyond the archway to form an open space, facing which are two long low buildings—the these to be used for governmental and military purposes. This square opens further on to a large public park, in the center of which is a decorative fountain. Overlooking the country for miles around, a lofty tower or campanile marks one corner of the square, each face showing a great clock. A winding stair leads up to the roof from which a superb view of the country may be had.

Parallel to the river and cutting directly through this park space runs a main road. Its entrances
are guarded by a government block consisting of a main building pierced by a great archway, and a large courtyard. This latter is surrounded by a high wall with great wrought-iron gates, the main one marked by two guard houses. From these courtyards broad flights of steps lead down to the water's edge, and the road running beside it.

The entire groups, including these buildings, the tower, military buildings, archways and guard houses, is connected by arcades affording protection from the weather and a passage for sentries. From the sunny plaza bordered by lawns and flower gardens three wide roads shaded by avenues of trees run out, serving as the main roads of the town.

The entire scheme is marked by the greatest simplicity of execution. The buildings, like the bridge are developed in concrete, the red tiled roofs forming a brilliant contrast to the white surfaces; the low spreading government and military buildings making the archways and campanile seem the more impressive.

Consideration of the neighboring country and of the style of buildings seen there has led to the adoption of a design in which is seen the influence of the missions of lower California,
The Churches of Mexico and more especially of the palaces and towers of Spain. A study of the Cathedral and cloisters of Burgos. Certain houses of Salamanca, the Puerta del Sol and the Hospital of Toledo, and other buildings of Spain has suggested a scheme of treatment for the Triumphal arches which shall not only make them as fitting monuments to the greatness of the United States, but as appropriate tributes to the Architecture of Mexico and Spain.

Underlying the entire design there lies the double 'motive'; a bridge which shall at once suggest a generous hospitable means of communication, and at the same time, and subordinated, be a warning of the strength and power that controls it.

DRAWINGS SUBMITTED:
General plan and elevation 1/64 inch scale,
Plan, elevation, side elevation and sections of Arch. 1/8 inch scale,
Birds eye view of bridge 1/32 inch scale.