a state of the republic. It was shortly after this that the first American colonists were permitted to enter the territory under Government patronage. Within ten years over 20,000 had settled between the Sabine and the Colorado. In 1830 the Mexican Government placed them under military rule, from which, with accompanying impositions, originated the war of Texan Independ­ence. The Anglo-Americans were assisted by volunteers from the United States, and the war was terminated by the defeat of the Mexicans under General Santa Anna at San Jacinto, 21st April 1836. From 1837 to 1845 Texas was an independent republic. It was admitted to the United States on 29th December 1845, in spite of the protests of Mexico, and a war with that country immediately ensued. The new State sold to the United States Government for $10,000,000 all the territory west and north of the present bound­aries between the headwaters of the Rio Grande and the Arkansas. But it reserved the control and disposal of the public lands within its borders, which have proved a magnificent source of revenue, and also the right to divide into five states, should future growth and development justify it. By a small majority the State seceded from the Union in 1861. In 1868 a new constitution was adopted, and the State readmitted into the Union. In 1874 the Kiowa and Comanche Indians, who had prevented the settlement of the central and plains regions from the earliest times, were subjugated.

See Hill, *Geolog. Knowledge of Texas* (1887)—Bull. 44, *U. S. Geolog. Survey ; Geological Map of the United States,* by C. H. Hitchcock ; *Report* on cotton production, Tenth U. S. Census, by Dr. R. H. Loughridge ; forestry *Reports,* Tenth U. S. Census; *Mexican Boundary Survey,* vol. i.; *Proceedings of Boundary Commission,* Austin, 1886 ; *Trans. of Academy of Sciences, St Louis,* vols. i. and ii. (Dr Shumard) ; Thrall, *History of Texas* ; Kendall, *Santa Fé Expedition ;* Spaight, *Resources,* &c., *of Texas,* Austin, 1882; Roemer, *Kreidebildungen von Texas,* 1852; Walcott, *Cambrian Faunas of N. America—*Bull 30, *U. S. Geolog. Survey;* Hill, “Topogr. and Geol. of Cross Timbers of Texas,” in *Amer. Journ. Sci.,* April 1887 ; Cahe, *Zoolog. Position of Texas* ; Marcy, *Exploration of Red River; Report of* the U. S. Mexican Boundary Survey; Havard, *Report* on the flora of west and south Texas ; and U. S. explorations for a route for a Pacific Railway. (R. T. H.)

TEXTILES.@@1 This word is applied to all fabrics which are woven in a loom, of whatever material they may be made, and whether the woven stuff be plain or figured. The simplest and earliest process of weaving was managed thus. The ground of the future stuff was formed by a number of parallel strings called the *warp,* having their upper ends attached to a horizontal beam and drawn taut by weights hung from their lower ends. In the early Greek loom each warp thread had a separate weight (see fig. 1). On the number of the warp strings the fineness and width of the stuff depended. The strings of the *weft* were interlaced at right angles to those of the warp, and the combination of the two formed the woven stuff or *web.* The *weft* was so called from its being “ wafted ” in and out of the warp ; it is also often called the *woof,* though more correctly the woof is the same as the web or finished stuff. The threads of the weft were wound round a sort of bobbin on a pivot which was made to revolve inside a hollow boat-shaped piece of wood pointed at both ends so as to pass easily between the threads of the warp. This is called the *shuttle.* The thread passed out through a hole in the side of the shuttle, the inner pivot revolving as the thread was delivered between the strings of the warp. In order to make the weft interlace in the warp some of the upright strings were pulled forward out of the general plane in which the warp hung ; this was done in the simplest way by a reed, which divided the threads into two sets called *leaves* and thus formed an opening called the *shred,* through which the shuttle could pass, as shown in fig. 1. Another way, applicable to more complicated ornamental weaving, was to have a series of threads attached to the warp at right angles, so that the weaver could pull any of the warp threads away from the rest, thus allowing the shuttle to pass in front of or behind any special warp strings. By a very simple mechanical contrivance these threads were worked by a foot treadle, thus leaving the weaver’s hands free to manage the shuttle.@@2 In the

simplest sort of weaving first one and then the other half of the warp threads were pulled forward, and so a plain regularly interlaced stuff was woven. The next stage was to make a cloth with coloured stripes, by using success­ively two shuttles containing different-coloured threads. In a chequered cloth the warp was made of two-coloured threads stretched in successive bands, and the cross stripes of the weft were woven in by the two shuttles. To form a more complicated pattern the weft must not cross the warp alternately : the design is formed by either the warp or the weft predominating on the surface in certain places. In all cases each thread of the weft must be driven home to its place after each stroke of the shuttle. In the earliest times this was done by beating the weft with a wooden sword-shaped implement@@3 introduced between the strings of the warp ; but later a heavy comb-shaped tool was used,@@4 the teeth of which passed between the warp and drove home at one blow a longer length of the weft. An upright loom such as has been described is shown clearly in some of the wall paintings from Thebes, dating about 1600 b.c. and in other earlier ones from Beni-Hasan. A very similar loom is represented on a Greek vase of the 5th century b.c., with a picture of Penelope and the never-finished piece of stuff (see fig. 1). In this interesting painting the upper band has simple geometrical ornaments, such as occur on archaic Greek vases; the next has figures of winged men and gryphons. This sort of loom is still used in Scandinavian countries for tapestry.@@6 Another form has the warp threads stretched, not upright, but horizontally,—an arrangement which is more convenient for working treadles. These two forms are called in French “la haute lisse’’ and “la basse lisse,”—the high and the low loom. The general principle is the same in both. Fig. 2 shows a simple form of the “basse lisse,” such as was used throughout the Middle Ages, except in Iceland and in Scandinavia.@@7 The clay whorls, or pierced cones, decorated with simple painting, which have been found in countless numbers on the sites of Troy, Mycenæ, and other prehistoric cities, were probably used to strain the thread as it was being spun on the distaff.@@8 Other

@@@1 This article deals mainly with the history of the textile art ; for practical information as to modern processes, see Weaving ; see also Embroidery, vol. viii. p. 160 *sq.*

@@@2 These dividing sticks are called in French “batons à deux”; in the simplest kind of weaving only one is required. The use of treadles and “ spring staves ” is more applicable to the low loom, in which the warp is strained in a horizontal position.

@@@3 Lat. *spatha.*

@@@4 Lat. *pecten* ; modern English *batten* or *lay.*

@@@5 See *Mon. Inst. Arch. Rom.,* vol. ix. pl. 42.

@@@6 See the modern Faroese loom figured by Worsaae, *Afbildninger fra det k. Museum for Nordiske Oldsager,* Copenhagen, 1854, p. 123.

@@@7 A fresco by Pinturicchio—911 in the National Gallery, London— has a careful representation of the mediæval low loom ; the subject is the return of Ulysses to Penelope.

@@@8 Dr Schliemann found 22,000 in the plains of Troy alone.