Gossypium, a genus of Plants belonging to the natural order Malvaceae, common to both the Old and New World, and which, from the hair, or cotton, enveloping its seed being so admirably adapted for weaving into cloth, is, after those affordig food, one of the most important groups of plants. There can be no doubt that it is indigenous in America, as, besides the distinctness in species, specimens of cotton still attached to the seeds, as well as cloth fabricated from the former, have been brought by Mr. Cumming from the Paracaima tombs. Some of the cloth, consisting of chequered squares of black and white, very nearly resembles some modern patterns. Humboldt has moreover stated that it formed the only clothing of the natives of Mexico, and is one of the plants they most ancienly cultivated. With respect to the Old World, the utmost universal use of cotton as clothing in the East is well known, and as the species, so far as ascertained by botanists, appear to be Indian importations, the investigation is interesting as proving an early communication between the civilised nations of remote antiquity. Though Roscellini incorrectly states that cotton was employed as musical instrument, it has been known to the ancient Egyptians, as he found some of the seed in one of the monuments of Thebes. In later times, we learn from Arrian that muslin was exported from India to the Arabian Gulf, and from that country cotton was no doubt first made known to the rest of the world.

The Sanscrit name of the Cotton-Plant is 'karpas,' and the Hindoos 'kapas'; the cotton itself is in the latter language called 'root.' The former is interesting, as 'kaprasca' occurs in the 'Periplius' of Arrian, and is rendered by Dr. Vincent 'fine muslin.' It is derived from the Sanscrit 'karpas,' from which, probably, as indicated by the editor of the text, the Hebrew, the Saxon 'karpse,' the Anglo-Saxon 'karple,' employed in the book of Esther (chap. l. v. 6), is also derived; so likewise the Latin 'karbassa.' Dr. Boyle, in his 'Essay on the Antiquity of Hindoo Medicine' (notes, p. 143), infers, that as in the above passage of Esther, investigation is interesting as proving an early communication between the civilised nations of remote antiquity. Though Roscellini incorrectly states that cotton was employed as musical instrument, it has been known to the ancient Egyptians, as he found some of the seed in one of the monuments of Thebes. In later times, we learn from Arrian that muslin was exported from India to the Arabian Gulf, and from that country cotton was no doubt first made known to the rest of the world.

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Cotton was no doubt in later times cultivated and manufactured into cloth. Flinn (lib. xix. c. 1) states that Upper Egypt produces a small shrub which some call 'gossypium,' others 'xylon,' bearing fruit like a nut, from the interior of which a kind of wool is produced, from which white and soft cloth is manufactured. Had it been common in Egypt in the time of Herodotus, it could not have escaped him; as he says specially of the Indians, that they possess a kind of plant which, instead of fruits, produces wool of a finer and better quality than that of sheep: of this the natives make their clothes. Neurous describes the dress of the Indians as being made of flax from trees ('Library of Entertaining Knowledge,' Egypt. Antiq., ii. p. 125). Theophrastus (lib. iv. c. 9) clearly describes the cotton with leaves like the vine, but being abundant in the Island of Tulos in the Persian Gulf. Heeren, in his work on the 'Commerce of the Ancients' comes to the conclusion that these plantations of cotton in the Island of Tulos were then commenced, and commerce with India, the true country of the cotton. The inference from these quotations of the original introduction of cotton from India into Egypt are in some measure confirmed by there being no species of Gossypium indigenous and peculiar to the latter country. In conclusion, it is necessary to refer to the facility with which cotton is distinguished from linen to controvert the assertion of Roscellini that it was always employed for mummy-cloth; as the result of numerous observations by Baur, &c., with the most powerful microscopes of modern times, and every variety of mummy-cloth, has proved that it is invariably confined to linen, and not of cotton cloth. The one fibre is easily distinguished from the other; that of cotton having a flat tape or riband-like appearance, while the fibre of the linen has a round tubular and evoluted structure. (Egypt. Antiq., 'Library of Entertaining Knowledge,' vol. ii. p. 182.)

The genus Gossypium is characterized by having a double calyx, of the inner is cup-shaped, obtusely 5-toothed, the outer involucres triplicate, with the leaflets united at the base, coriaceous, with the margins irregularly cut. Stigmas, 3-5. Capsules, 3- or 5-celled, many-seeded. Seeds clothed with wool-like hairs, or cotton.

The species of Gossypium naturally probably exceeding the torrid zone in breadth, but in a cultivated state we have cotton now extending on one hand to the south of Europe, and Lower Virginia, and even Maryland; in the United States of America; and on the other we have the Id as far south as the Cape of Good Hope, and in America to the southern parts of Brazil. Within these limits it may also be seen cultivated at considerable elevations. Baron Humboldt mentions having seen it even at 9000 feet of elevation in the Equinoctial Andes, and in Mexico at 5500 feet. Dr. Royle states that it is cultivated in small quantities at 4000 feet of elevation in 30® N. lat. the Guiana's. The localities suited for the location of the species depend as much upon the climate as the soil, and also upon the specific peculiarities of the different kinds of cotton plants. That the preponderance of cotton is so much influenced by external circumstances is not more remarkable than in many other cultivated plants; indeed, we might expect it to be more so from the susceptibility of this hairy development to the influence of situation. Humboldt has remarked, that G. barbadense, G. hirsutum, and others, where the mean annual temperature is from 82° to 85°; but that G. herbaceum is successfully cultivated where the summer heat being less than 77°, that of winter less than 46° or 52°, that of cotton however does not depend so much on winter cold as on sufficient length of suitable summer heat. The thermometer in Upper Virginia is sometimes as low as zero Fahrenheit in winter, and cotton can be cultivated during the long summer.

It is remarkable that a genus so important for its product, and so long known, and with comparatively so small a number of species, should yet have these uncertainties. The cultivated species of cotton, none of which are native, are in no case so defined that no genus more urgently requires the labours of a monograph from a careful botanist who could have the opportunity of seeing the species. The confusion of the measure proceeded from botanists absurdly neglecting the cultivation in their search for new species; and cultivators being incompetent or unwilling to distinguish varieties from species, frequently raising the former to the rank of the latter, because the produce, in which alone they are interested, happened to be more or less valuable. In the proceedings of the East Indian Committee there is an interesting letter from Mr. Spalding, who informs us that his of cotton cultivators combine their attention to such plants as are of annual growth 1st. The Nankeen Cotton, introduced at an early period. This is abundant in produce; the seed covered with a dirty yellow colour, other qualities low priced. 2nd. The Green-Seed Cotton with white wool, which, with the former, is grown in the middle and upper districts, whereas the latter is called Upland Cotton (or Short Staple). 3rd. Bowed Georgia Cotton. 3rd. The Sea-Island or Long Staple Cotton, which is distinguished by the black colour of its seed, and by the fine, white, strong, and silky long staple hair wound down with the greater part of the cotton. This is grown in the lower parts of Georgia and South Carolina, near the sea, and on several small islands which are very distant from the shore.

The species admitted by botanists are not yet clearly determined. M. De Candolle admits 13 species, and notices others. Two have since been described by Dr. Roxburgh, one by Rassou, and another in the "Flora de Benguá." Of varieties Mr. Roxburgh says that "the cotton cultivators combine their attention to such plants as are of annual growth 1st. The Nankeen Cotton, introduced at an early period. This is abundant in produce; the seed covered with a dirty yellow colour, other qualities low priced. 2nd. The Green-Seed Cotton with white wool, which, with the former, is grown in the middle and upper districts, whereas the latter is called Upland Cotton (or Short Staple). 3rd. Bowed Georgia Cotton. 3rd. The Sea-Island or Long Staple Cotton, which is distinguished by the black colour of its seed, and by the fine, white, strong, and silky long staple hair wound down with the great part of the cotton. This is grown in the lower parts of Georgia and South Carolina, near the sea, and on several small islands which are very distant from the shore. The species admitted by botanists are not yet clearly determined. M. De Candolle admits 13 species, and notices others. Two have since been described by Dr. Roxburgh, one by Rassou, and another in the "Flora de Benguá." Of varieties Mr. Roxburgh says that..."
with finely-adhering grayish down under the short-staple white wool.

This and its varieties are those chiefly cultivated in India. It has been
preserved from China and the Malayan Peninsula, and also from
Egypt. _G. punctatum_, from Senegambia, is probably a variety. It
is that cultivated in the Mediterranean region, and must have been
the species taken to America from Smyrna.

_G. arboreum_, Linn. Stem arborescent, 15-20 feet, sometimes shrubby,
young parts hairy, tinged of a reddish colour. Leaves palmate, 3- or
4-lobed, hairy, dotted with blackish spots of a dark green colour;
loves elongated, lanceolate, sometimes mucronate, sinus obtuse, gland
one, sometimes three. Stipules oval-shaped. Flowers solitary, with
short peduncles, red, with a yellowish tinge near the claws. Leaflets
of the exterior calyx cordate, oval, entire, sometimes dentate. Capsule
ovate-pointed, 3- or 4-celled, seeds covered with a greenish-coloured
fur, enveloped in fine silky yellowish-white wool. This species is found
in the island of Ceylon and in every part of India. It is noticed among
lists of the plants of Arabia, and also of Egypt. It is planted near
temples and habitations of Faqueers in India, and is stated to be sacred
to the Hindoo deities, and therefore employed only for making muslin for
turbans. The species is marked _G. religiosum_ in Hayne’s ‘Herbarium,’ and one specimen of _G. Barbadeae_ is marked _G. arborescens_ in the Linnean Herbarium.

_G. religiosum_. Perennial. Stem 3-4 feet, branches and petioles a
little velvety, hisrate towards the apex, and covered with black
points. Leaves cordate, superior 5-lobed, inferior 5-lobed, deeply
divided, lobes ovate-acute, entire, pubescent (some of the lower
ones ovate-acuminata), one to three glands; stipules lanceolate,
deiciduous (cordate-acuminate, Roxb.). Flowers large, fulvous,
peduncles short, dotted; leaflets of the exterior calyx long, cordate-
acuminate, hairy and dotted; capsule ovate-acuminata, dotted, 3- 4-
or 5-celled; seeds black, covered with firmly-adhering short tawny fur
under the long tawny-coloured wool.

leaves and much dotted in every part, of which he has seen specimens
from Macao, Tahiti, and Guzerat. The other is a much larger plant,
with the general appearance and leaves of _G. Barbadeae_, of which
there are specimens in the ‘East Indian Herbarium.’ Mr. Wilkinson
has brought specimens from Egypt of a rather tawny-coloured cotton,
with brownish seed, free from fur, which he says is there called
‘gotten Hindoo’.

_G. hirsutum_, Linn. Shrubby, about six feet high, young pods very
hairy. Leaves, the upper undivided, cordate, acute; the lower 5- or
6-lobed; lobes ovate, acute (triangular, Roxb.), hairy on the under
and smooth on the upper surface. Petioles very hairy, dotted with
black spots; glands 1 or 2 to 3; stipules lanceolate (Cavallinii);
coroll, base yellow, purplish towards apex (uniform yellow, Roxb.);
exterior calyx ovate-acute, very hairy, cotylate, 3-toothed (Car. laciniate,
Roxb.); capsule large, ovate-acutae; seeds many, free, clothed
with firmly-adhering green down under the fine long white wool.
(Swartz.) This species is cultivated in Jamaica, according to Swartz;
and would appear, from the description of the seed, to be the Green-
Seeded, Short-Staple, or Upland Cotton of the Americans.

_G. Barbadeae_. Stem shrubby, 6-15 feet, smooth; leaves, the upper
5-lobed, the lower 5-lobed; lobes ovate, acute, smooth, often pubes-
cent on the under surface; leaflets of exterior calyx large, deeply
lacinate, flowers yellow; capsule ovate, acuminate, smooth; seeds
3-12, free, oblong, black, and without any other pubescence than the
long fine easily separable cotton. Swartz describes this species as
extensively cultivated in the West Indies; it is also the _G. vitifolium_
of Cavanius. It is one of the cultivated cottons of Egypt. It is
more than probable that the Sea-Island or Long-Staple Cotton is a
variety of this species, as its seeds agree in character. More than
this it is not possible to say, as, among the numerous collections
which London contains, strange to relate, there are none in which
genuine specimens of cultivated cottons, properly names, can be seen;
but it is to be hoped that travellers and naturalists will be induced
to pay a little more attention to the products of a country, whether
natural or the result of art, and deposit them in our museums, with
the plants which produce them.

Several other species, as _G. punctatum_, from Senegal; _G. obtusifolium_,
from Ceylon; and _G. Peruvianum_, from Brazil, have been described,
but Dr. Royle is of opinion that all the species of cotton may be
reduced to four. — _G. Peruvianum_ (G. acuminatum); _G. Indicum_
(G. hirsutum); _G. Barbadeae_; _G. arborescens_, and _G. religiosum_.

For further information the reader is referred to the works quoted
above, and to Royle’s ‘Illustrations of the Botany, &c., of the
Himalayan Mountains.’ [COTTON, IN ARTS AND SC. DIV.]

Gossypium Barbadeae.

1, branch with full and half-blown flowers; 2, capsule burst open, showing
the cotton in three divisions corresponding with the cells of the capsule; 3, a
seed enveloped with cotton.

There is considerable confusion with respect to the species which
should be called _G. religiosum_. The distinguishing characteristics of
what is considered such at present is the having tawny-coloured
instead of white wool. There are at least two distinct localities for
this kind of cotton: one Siam, the other China. From the latter
country it was introduced both into India and America under the
name of Nankin Cotton. Dr. Royle is of opinion that two distinct
species yield tawny-coloured cotton; one with small velvety-looking

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