nation, they are found to be tied together by oblique fibres curiously interlaced, in a way that no art can imitate. It is only after long maceration in water, that this complicated and beautiful structure can be unravelled.

The mechanical properties of these fibrous structures, which are strictly inextensible ligatures, render them applicable to purposes of connexion where motion is to be restrained. Many cases, however, occur in which a substance is wanting, uniting great compactness and strength with a considerable degree of elastic power. For this purpose a different texture is fabricated, consisting of twisted fibres, which impart this required elasticity. Such is the structure of the *elastic ligaments* of animals, which are very generally employed for the support of heavy parts that require being suspended. An instance occurs in quadrupeds, in that strong ligament which passes along the back and neck to be fixed to the head, and to support its weight when the animal stoops to graze. This, the *ligamentum nuchæ*, as it is termed, is capable of great extension, and by its elasticity reacts with considerable force in recovering its natural length, after it has been stretched. This ligament is particularly strong in the Camel, whose neck is of great length.* Another example of an elastic ligament occurs in that which connects the two shells of bivalve mollusca (as those of the oyster and muscle,) and which keeps them open when the animal exerts no force to close them. The claws of the Lion, and other animals of the cat tribe, are retracted within their sheaths by means of two strong elastic ligaments. Structures

* Many birds are provided with strong elastic ligaments connecting the vertebræ of the neck with those of the back; ligaments of the same kind are also employed for retaining the wings close to the body, where they are not used in flying: and a similar provision is made in the wings of bats. The weight of the bulky organs of digestion in herbivorous quadrupeds requires some permanent support of this kind; and this is furnished by a broad, elastic fibrous band extended across the lower part of the abdomen. It is particularly strong in the elephant, which remains more constantly in the horizontal position than most quadrupeds: and it has been remarked that the general cellular texture in this animal has an unusual degree of elasticity.—Hunter on the Blood, &c. p. 112.