INTRODUCTION

Since 1922, when van der Hoeve (1922) dealt with the subject at length in the chapter contributed by him to Elschnig's edition of "Operationslehre" forming part of Graefe, Saemisch and Hess "Handbuch der gesamten Augenheilkunde", an ample chapter has been devoted to this subject in the "Traité d'Ophtalmologie" by de Saint-Martin & Onfray (1939), while Meller (1946) in the latest edition of "Augenärztliche Eingriffe", Blaskovics & Kreiker (1938) in "Eingriffe am Auge" and finally Jaensch (1942) in the new publication "Ophthalmologische Operationslehre" have treated the matter in greater or less detail.

It may, therefore, be asked whether there is any need for a new comprehensive study of this field. The answer, in my opinion, is in the negative. There is no doubt that the reader can find in the above-mentioned works more than I am able to offer him here. In a symposium on squint, however, the operative treatment must not be forgotten, while a résumé of what seems the present writer to be the most important points from the literature may be welcome to the reader. For those who still have to make a choice among the overwhelming multitude of recommended methods, the personal judgement of someone who has tried out many techniques and has succeeded at last in reaching a choice that is satisfactory for the time being, may well be of some value. The writer is quite aware that personal preferences play a great part in the judgement. The fact, however, that his views are in agreement on all important points with those of such experienced operators as van der Hoeve and Blaskovics, must certainly enhance their value.

In order to treat this subject in the few dozen pages at my disposal, I shall have to impose considerable restrictions on myself. These restrictions are of two kinds. In the first place I intend to confine myself to strabismus concomitans and chiefly to strabismus convergens and divergens (including latent strabismus). In the second place I do not intend to describe in detail the countless techniques which have been advocated in the course of years, but shall confine myself on the whole to the general principles upon which our operative technique should be built up. Finally, the method used in the Utrecht clinic will be discussed by way of example and statistics of the results obtained will be presented.
HISTORICAL REMARKS

In the “Mercure de France” 1737 Taylor (see Velpeau 1842 “Du Strabisme”) proposed to “publier les découvertes qu'il a faites de redresser les yeux des louches par une opération prompte presque sans douleur et sans crainte d'aucun accident”. No further data are available, however. A century after Taylor, Stromeyer (1838) advocated operative treatment of squint.

The first surgeons of whom we know with certainty that they operated by severing a muscle were Dieffenbach and Cunier (both in 1839). Cunier abandoned the method after one attempt, but Dieffenbach saw clearly the great importance of the operation and became an ardent advocate of it. For this reason van der Hoeve (1922) wishes to accord him the title of “Father of strabismus operations”.

Dieffenbach and his rapidly-growing legion of disciples used myotomy and later tenotomy. In the course of ten years Dieffenbach performed no less than 3000 myotomies. The numerous cases of overcorrection and unsatisfactory result cast discredit on the method that had originally been received with so much enthusiasm, until nearly 20 years later when von Graefe restored the strabismus operation to favour by the introduction of tenotomy (already proposed in 1845 by Böhm). Notwithstanding the modifications and improvements in the technique – which were chiefly directed towards avoidance of the danger of over-correction (partial tenotomy, avoidance of incision of Tenon’s capsule, lengthening of muscles, etc.) these muscle-weakening operations soon acquired a serious rival in the form of operations designed to strengthen the function of the insufficiently-acting antagonist. At first, however, these operations were performed only to deal with overcorrection resulting from myotomy (Dieffenbach, 1842) or tenotomy (Critchett, 1855).

(As early as 1841, Guérin had tried to promote better attachment of the severed and retrieved muscle by fixing the eyeball and the muscle separately in more satisfactory positions by means of sutures which, in their turn, were fixed with plaster onto the skin. He did not suture the muscle to its stump (von Graefe) or to the sclera (Critchett).)

The great protagonist of muscle-strengthening methods, such as those to which we now frequently have recourse in the first place, was Landolt who chose the term “Vorlagerung” for this type of operation, in contradiction to “Rücklagerung” for myotomy and tenotomy.

In addition to the “Vorlagerung” or “Vornähung” to the methods of tendon or muscle shortening were supplemented by modifications which