
Atlas of PLASTIC SURGERY

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PREFACE

Such strides have been made in recent years in the concepts and techniques of plastic surgery that when the First Edition of this *Atlas* was exhausted it seemed advisable to undertake a revision rather than simply a reprinting. Thus this new edition, while retaining the form and format which proved so practical in the first version, now includes revision of various chapters to present current advances of tested value in the special areas covered. Substantial additions have particularly been made in corrective surgery of the eyelids, face and breasts.

The emphasis is on cosmetic improvement, and the presentation of technics in both text and illustrations is designed to provide an easily understandable guide, pared down to the working essentials needed by the practicing surgeon confronted with a specific problem, without sacrificing anything of direct, practical importance to this end. However, in order to keep the book within compassable limits, there has been no attempt to supply a comprehensive surgical text. Rather, I have deliberately limited the presentation to those procedures most commonly required by the patient-public for cosmetic repair. The book is further limited to those procedures with which I have had personal experience.

Recent progress in plastic corrective surgery, originally spurred by wartime experience, has encouraged many practitioners to enter the field. The growing importance of this specialty has also benefited from the increased awareness of the value of considering the patient as a whole—and the patient's concept of himself is an integral part of this larger aim of therapy, completely aside from functional surgical improvement. A physically scarred or

malformed human being may be so psychologically, socially and economically hamstrung as to be a handicap not only to himself and his family but to society as well. In this respect, both general surgeons and specialists encountering problems of plastic repair in their practice can perform a very real and indeed creative service. But like any creative artist (in this case, re-creative artists, working with living human material), they must first of all have the imagination to conceive of the desired cosmetic result, secondly the intelligence to understand each step of the best way to achieve that result, and finally the technical facility to consummate it. To this end they need authoritative advice based on experience, indoctrination into the meticulous and precise surgical approaches, and an insight into the artistic requirements. This book attempts to fill these needs in both essential background and working detail.

Beginning with the guiding esthetic principles in reconstructive and reparative surgery, modern technics and various modifications are presented, along with the surgical anatomy, instrumentarium, anesthetics, and surgical pitfalls with their consequent unsatisfactory if not mutilating sequelae. Here, remedial measures are described. Examples of postoperative results are given.

The atlas form of presentation seemed best suited for a clear and brief statement of each of these aspects. Within this format, text and illustrations have been placed in a two-column parallel arrangement to facilitate the study of the technics without time-wasting reorientation at each shift of attention between text and pictures. The drawings were made by Dorothea Sheffield, B.A. under my supervision and by myself with the purpose of emphasizing the practical points and to make the step-by-step procedures vividly understandable. The photographs were made in the operating room and from my motion picture films of various operations. Color has been used in many instances to stress important points and to reduce the complex to the simple.

While the largest part of this book is drawn directly from over thirty years' clinical experience, the relevant literature has of course influenced the selection of certain classic technics for teaching purposes, with some personal modifications. These sources have been credited in the text and bibliography, and grateful acknowledgment is made of the importance of these contributions to the field at large.

Morton I. Berson, M.D.
New York, January 1963

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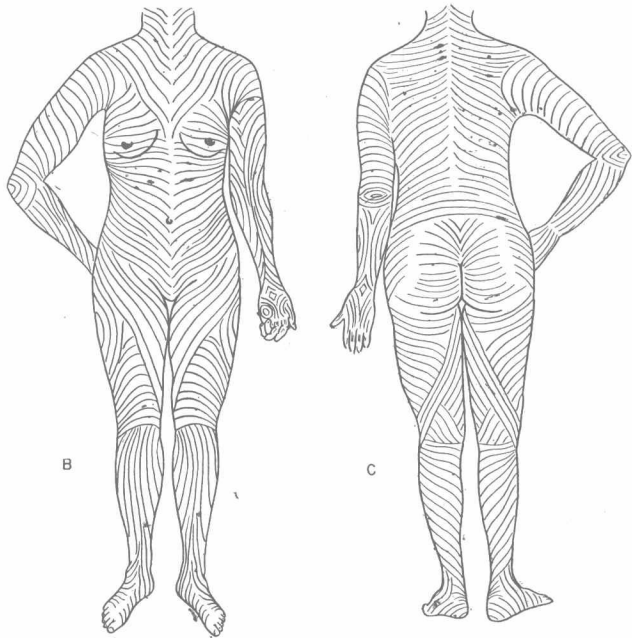
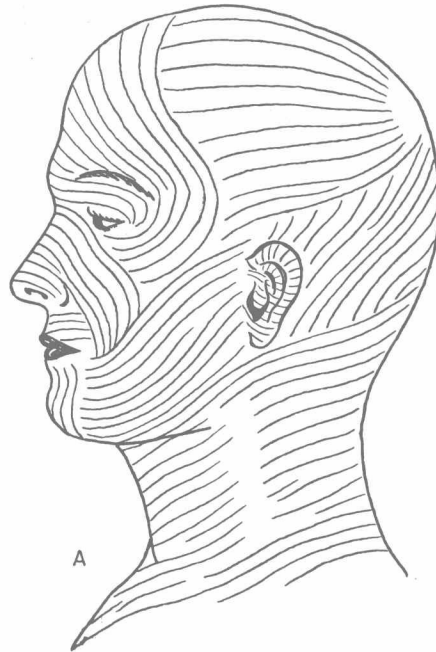
WOUNDS

SKIN AND SUBCUTANEOUS
TISSUES

Small skin defects can frequently be closed after simple excision of the denuded or scarred area. By undercutting and sliding the skin, or by making relaxing incisions, larger defects may be closed. Skin grafts or pedicle flaps are used if the defects are too large or inconveniently placed.

The site and direction of the incisional line is largely determined by the ultimate appearance of the scar. Frequently, the incision can be planned so as to conceal the scar in the hairline or along the mucocutaneous junction or in a natural groove or furrow. Where the site of the lesion contraindicates this concealment subsequent disfigurement may be minimized if the incision is made along Langer's skin tension lines. (A.B.C.).

Incisions are made along these lines to provide adequate exposure and to retain the strength of the tissues. The margins of the skin maintain a tensionless position advantageous for healing. Fine scars form and do not tend to be irregular, depressed, elevated or thickened. Incisions along Langer's lines permit ready elevation of skin margins and the subcutaneous tissue can be undermined in any direction. To obtain an extremely fine incision line the skin is drawn, stretching the cleavage lines, so that the knife passes at right angles to the surface.



SUTURING AND TYING KNOTS

A. Interrupted suture. Each stitch is tied separately. The suture consists of a single loop both ends of which project on the same side of the wound. It approximates the skin margins accurately.

B. Continuous suture. This consists of a series of stitches inserted uninterruptedly. Only the beginning and the end of the stitch are tied.

C. Interrupted mattress suture. Secures apposition; reinforces subcutaneous tissue and prevents stretching of scar. The suture ends project only on one side.

D. Continuous single-locked stitch. A simple interrupted suture is made and tied. The thread is held taut and the needle is passed through the tissues anterior to the thread. The terminal stitch is tied.

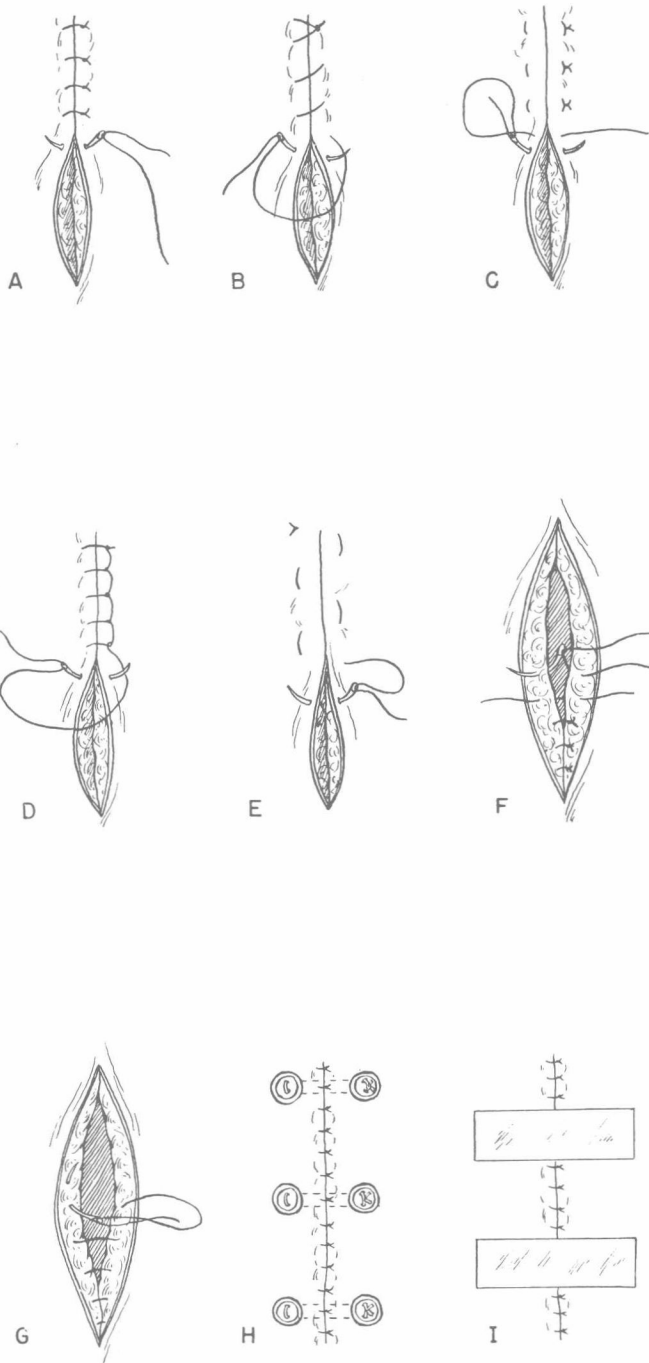
E. Continuous mattress. The suture is passed on both sides equidistant from the edges of the wound and tied.

F. Fascial suture. Interrupted sutures are passed through fascial margins along the entire length of the wound.

G. Continuous fascial sutures. Continuous sutures are passed through the fascial margins along the length of the wound. These sutures permit accurate approximation of wound margins and reduced tension.

H. Sutures for wound under tension. Mattress sutures, passed through buttons, are held under tension.

I. Tension of wound margins relieved by gauze bandage strips glued across the wound with collodion.



J. Continuous deep stay sutures. Used in suturing skin and the deeper tissues.

K. Subcuticular stitch. This variety, as the term denotes, is passed under the margin of the skin. It leaves no surgical stitch marks. The needle is passed about five-tenths of a centimeter from the angle of the wound and brought out at its end. It is passed below the margin of the skin line and then through a similar area on the opposite side. These sutures are placed about 0.5 cm. apart on the apposed margins until the wound is closed. The free ends of the suture are drawn taut and they are fastened either by a knot or tied over a strip of gauze which is held firmly in place.

L. Sutures for approximation and union of deep structures. A needle is passed through subcutaneous tissues on the distal margin and brought out on the proximal one.

M. Sectional view showing the position of the tissues in relation to the suture.

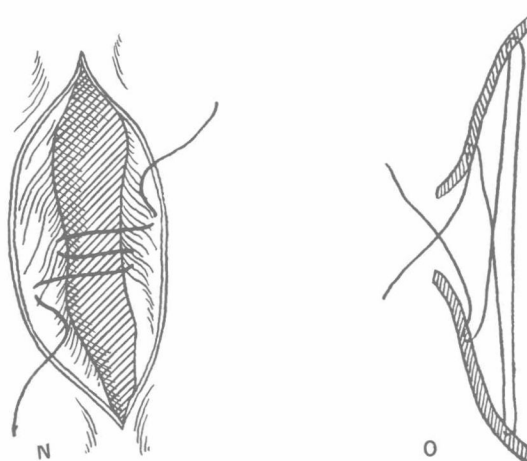
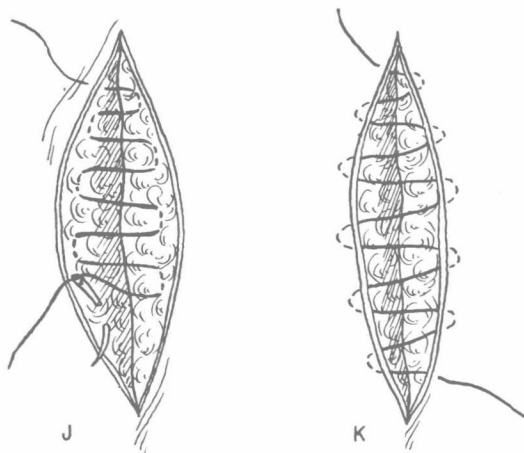
N. Simple interrupted sutures. Carried well into the tissues on both sides. The sutures are tightened, bringing the wound margins together and thus eliminating "dead" space.

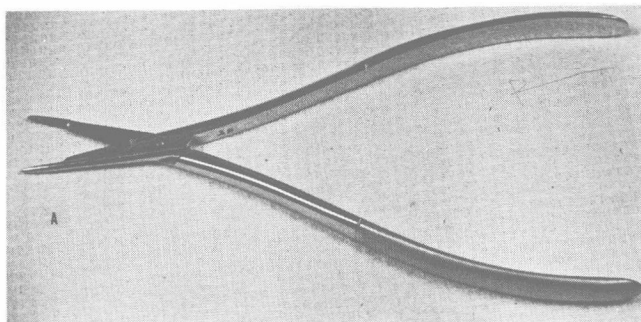
O. Interrupted on-end suture. This is deeply placed with tension removed from the wound edge.

P. Depressed scar to be removed.

Q. The incision is made through the skin and continued downward through the subcutaneous fat; the fat flap is thus formed. Scar tissue is excised.

R. The fat flap is drawn across and sutured into its new position.

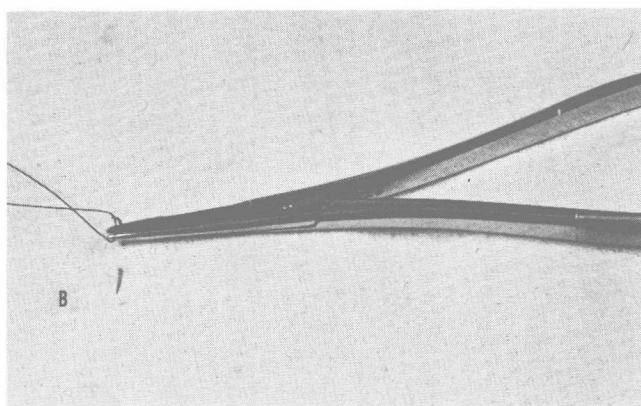




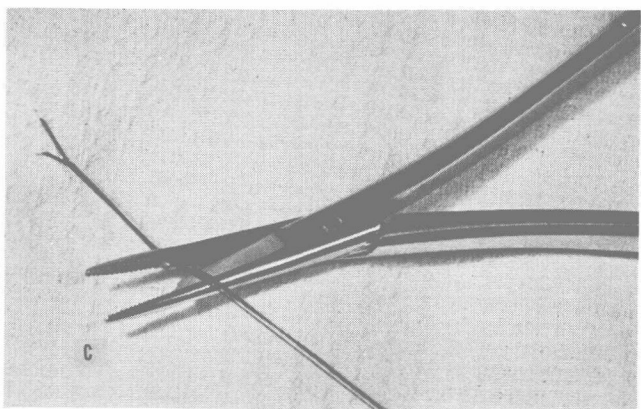
BERSON NEEDLE HOLDER

A. Needle holder for insertion of sutures. The sutures can be tied rapidly, untouched, and cut with the same instrument.

Needle holder contains fine serrated edges for holding the needle. Immediately beyond is the scissors part.



B. Needle holder, showing position of needle and suture.



C. Scissors cutting suture. With this instrument the surgeon can suture, tie and cut, the strand without touching it.

Improved needle-holder permits free use of fingers. The absence of a grip lock facilitates handling and also makes it possible, in delicate suturing, to work closer to the needle.