

The ROYAL SOCIETY'S whole *Troy Pound Weight* weighed, at a Medium, less than the Eight *Ounces* and Four *Ounces* of these Standards, taken together, by Two *Grains* and Three-eighths.

That the ROYAL SOCIETY'S *Averdupois Pound* weighed in *Troy Weight* by these Standards, 14 *Ounces* 11 *Penny Weight* 16 *Grains* and Seven-eighths; or 7000.87 *Grains*.

That the ROYAL SOCIETY'S Pile of 16 *Ounces Troy*, was lighter than 16 *Ounces* of these Standard Weights, by Four *Grains* and Three-fourths.

And lastly, That the ROYAL SOCIETY'S Eight *Ounces* and Four *Ounces* together, taken from their Pile, weighed lighter than their single *Troy Pound Weight*, by Five-eighths of a *Grain*.

X. *The Description of an Instrument for reducing a dislocated Shoulder; invented by Mr. John Freke, Surgeon of St. Bartholomew's Hospital, and F. R. S.*

GENTLEMEN,

Read June
23. 1743.

I Should not have presented this to you, but to shew in how small a Compass the whole Power which can be made use of in reducing a dislocated Shoulder can be contracted. If therefore a Machine for this Purpose be not portable, it matters but little to an afflicted Patient Ten Miles off, how good an Instrument is out of his Reach.

This

This Machine (see TAB. IV. Fig. 2.) which consists of Two Boxes *A*, joined at the Ends by Two Hinges, contains, when folded together, every thing that can possibly be wanted in the Operation before-mentioned; and it may so easily be made use of, without the Assistance of any other Operator than the Surgeon employed, that I may venture to affirm, a Patient may be set down, the Instrument applied, and the Shoulder reduced, in One Minute, ordinarily speaking.

The Length of this Instrument, when shut up, is One Foot Eight Inches, its Breadth Nine Inches, and Thickness Three Inches and a Quarter. When it is opened, it is kept so by Two Hooks fixed on the Backside of it; and when one End of it stands on the Ground, the other stands high enough to become a *Fulcrum*, or Support of a Lever *BB*, which is fixed on a Roller *b*, by a large Wood Screw, which turning sideways as well as with the Rower, it obtains a circumrotatory Motion, so that it will serve to reduce a Luxation either backward, forward, or downward.

The Roller on which the Lever is fixed, is just the Diameter of the Depth of one of the Boxes, into which are driven Two Iron Pins, the Ends of which are received by the Two Sides of the Box, which are an Inch thick.

The Lever is Two Foot Four Inches, and is cut off and joined again by Two Hinges *C*, to fold up so as to be contained in the Boxes. On the Backside of it is a Hook, to keep it strait; the other End of it is to hang over the Roller about an Inch and half, which is to be excavated and covered with Buff Leather, for the

the more easy Reception of the Head of the *Os humeri*.

Two Iron Cheeks *DD* are screwed on each Side of the Lever, to receive through them an Iron Roller *E*, which has Two Holes through it, to receive Two Cords coming from a Brace *F*, fixed on the lower Head of the *Os humeri*; for on no other Part of the Arm above the Cubit can a Bandage for this Purpose be useful; for, if the Surgeon applies it on the muscular Part of the Arm, it never fails slipping down to the Joint, before you can extend the Limb.

The Iron Roller has a square End, on which is fixed a Wheel *G*, within the Cheek, notched round, which works as a Ratchet on a Spring Ketch underneath the Lever, by which it is stopped, as you wind it with a Winch; and may at Pleasure be let loose, as there shall be Occasion for it, by discharging the Ketch.

I come now to describe the Brace *F*, which, compared with common Bandages, is of more Consequence than can easily be imagined by unexperienced Persons. It consists of a large Piece of Buff Leather, big enough to embrace the Arm, sewed on Two Pieces of strong Iron curved Plates, riveted together, one of them having an Eye at each End, to fasten Two Cords in; the other is bent at the Ends into Two Hooks, which are to receive the Cords, after they have crossed over the Arm above.

In order to keep the Patient steady in his Chair from coming forward, or letting the *Scapula* rise up, on depressing the Lever, after the Limb is drawn forward by the Winch, there must be fixed over the Shoulder a Girth with Two Hooks at the Ends of it,
long

long enough to reach to the Ground on the other Side, where it must be hooked into a Ring *I*, to be screwed into the Floor, for that Purpose.

XI. *A Letter from Pierce Dodd, M. D. Fellow of the Royal College of Physicians, London, and Physician to St. Bartholomew's Hospital, to the President of the ROYAL SOCIETY, concerning a Person who made bloody Urine in the Small-pox, and recovered.*

S I R,

Read June 23.
1743.

Making bloody Water is universally esteemed as terrible a Symptom as any that can happen in the *Small-pox*; and all who have wrote concerning that Distemper, do unanimously agree, that it is a certain Forerunner of approaching Death. Dr. *Cade*, indeed, says, in his Letters to Dr. *Freind*, concerning Purging in that Distemper, that he has sometimes cured this Symptom, by the Help of *Camphire*, and a copious Quantity of Acids; but then he adds, that this Relief was only temporary; and that, to confess the Truth, he never knew any body, that made that sort of Urine, who ever survived the 16th Day from the Eruption: And there is nobody whom I know, that has been conversant with this Distemper, but has constantly experienced, sooner or later, the like Fatality in consequence of it. I mean, when this sort of Urine has
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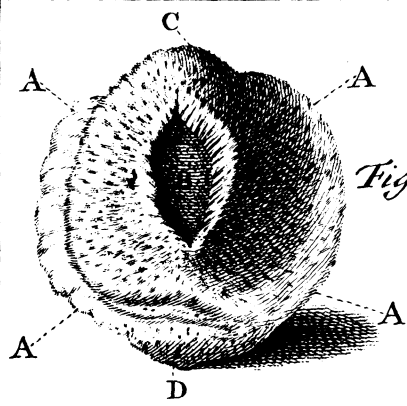


Fig. 1. p. 521.

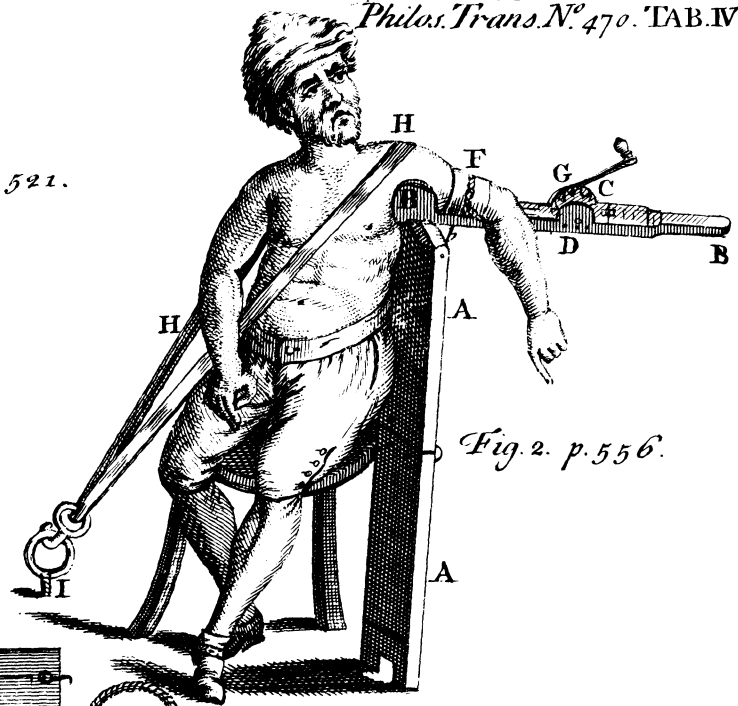


Fig. 2. p. 556.

