No. 736,886. PATENTED AUG. 18, 1903.

G. SMITH.

ARM REST.

APPLICATION FILED JAN. 3, 1903.

NO MODEL.

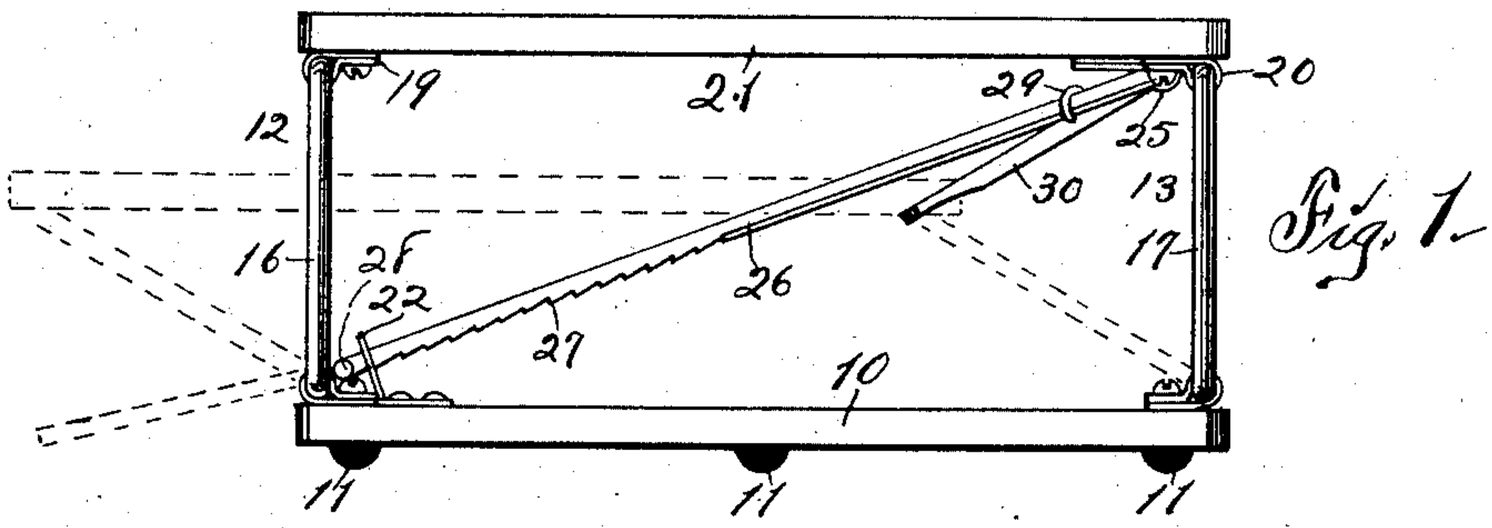


Fig. 1.

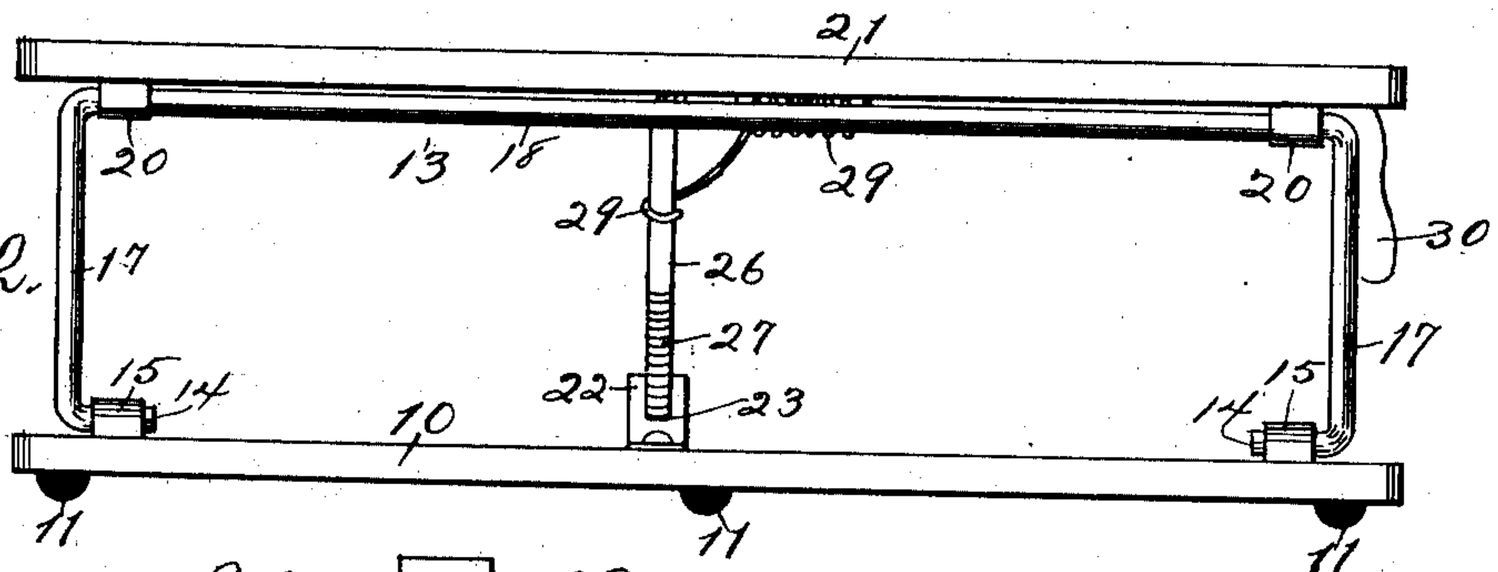
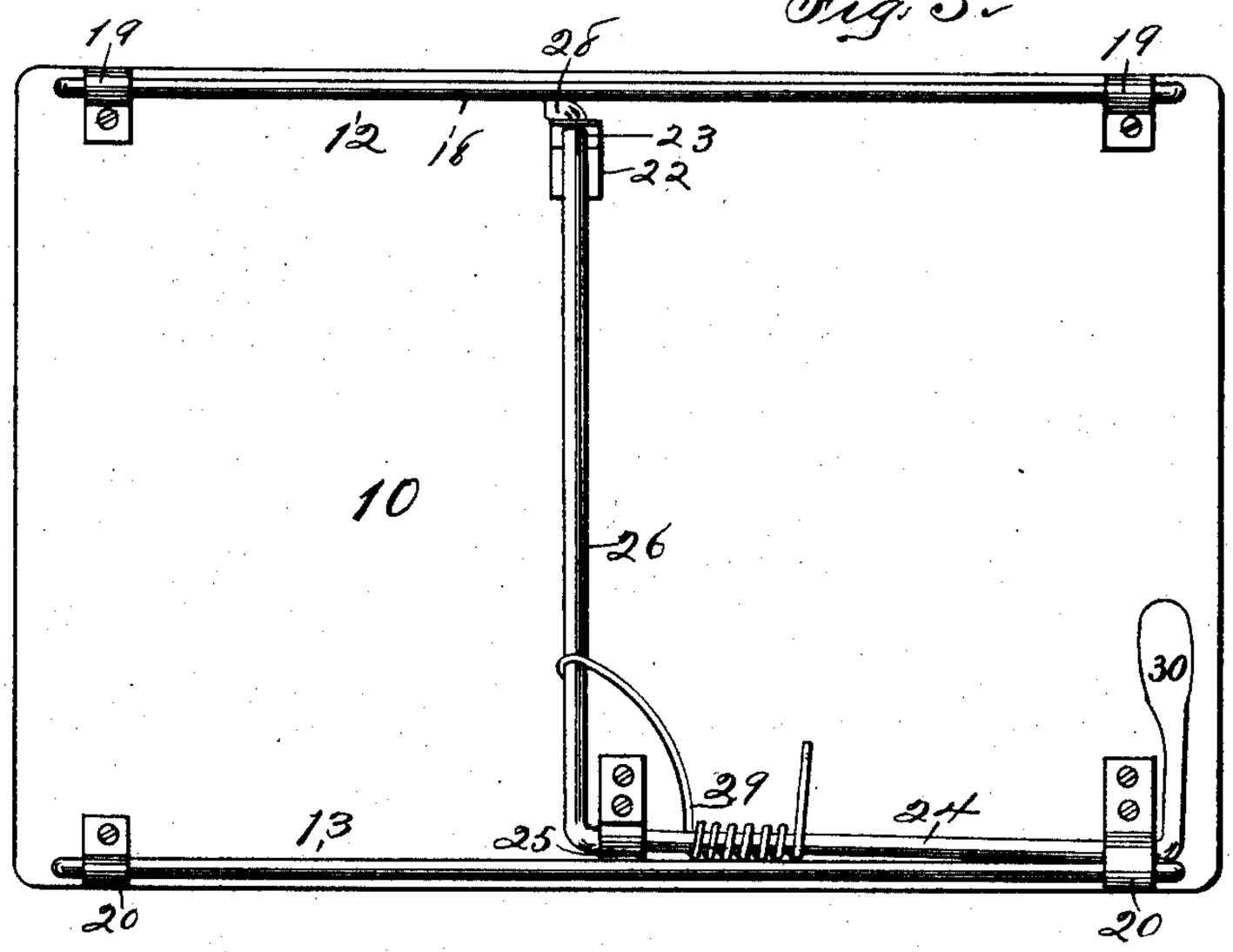


Fig. 2.

Fig. 4.

Fig. 3.



Attest:
W. C. Ellis
N. W. Winters

Inventor:
Guy Smith
By J. L. Sweet
Atty

No. 736,886. Patented August 18, 1903.

UNITED STATES PATENT OFFICE.

GUY SMITH, OF DES MOINES, IOWA.

ARM-REST.

SPECIFICATION forming part of Letters Patent No. 736,886, dated August 18, 1903.

Application filed January 3, 1903. Serial No. 137,753. (No model.)

To all whom it may concern:

Be it known that I, GUY SMITH, a citizen of the United States of America, and a resident of Des Moines, Polk county, Iowa, have invented a new and useful Arm-Rest, of which the following is a specification.

The object of this invention is to provide an improved arm-rest or table adjustable as to height to conform conveniently and readily to books of varying thicknesses.

My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is an end elevation of my improved device, the dotted lines indicating a somewhat contracted condition of the arm-rest. Fig. 2 is a rear elevation of the device. Fig. 3 is a plan of the device, the upper table being removed. Fig. 4 is a detail view of the fixed detent employed in the device.

In the construction of the device as shown the numeral 10 designates a table preferably provided with lugs 11, of flexible material, such as india-rubber, projecting from the lower face and serving as legs to contact with a suitable support, (not shown,) such as a desk, and sustain the table. Crank-shafts 12 13 are provided and formed with crank ends 14, pivoted in bearings or clips 15, fixed to the upper face of the table 10. End portions 16 17 of each crank-shaft 12 13 rise from integral connections with the crank ends 14 and are connected integrally with the middle portions 18 of said shafts. The middle portions 18 of the shafts are parallel with the crank ends 14 and are pivoted in bearings 19 20, fixed to the lower face of a table 21. The middle portions of the crank-shafts are spaced apart distances equal to the spacing apart of the crank ends 14, thus positioning the shafts parallel with each other. The end portions 16 17 of the crank-shafts are of the same length and hold the table 21 parallel with the table 10 at all times. A detent 22, of angle form, is fixed to the table 10 near one long margin thereof, and an aperture 23 is formed in the upright portion of the detent. The aperture 23 is longer vertically than horizontally for a purpose hereinafter to be made plain.

A rock-shaft 24 is mounted for oscillation in bearings 20 25, fixed to the lower face of the table 21, and is approximately parallel with the middle portions of the crank-shafts 12 13. A ratchet-arm 26 is formed on one end portion of the rock-shaft 24 and extends at right angles thereto across and between the tables and through the aperture 23 of the detent 22. Teeth 27 are formed on the lower face of the ratchet-arm 26 and engage the detent 22 at the lower margin of the aperture 23 normally and prevent outward movement of the ratchet-arm relative to the detent. The outer extremity of the ratchet-arm 26 is bent laterally to form a hook 28, which serves to prevent rearward withdrawal of the ratchet-arm from the detent. The ratchet-arm 26 is held down with its teeth 27 in engagement with the detent 22 by a torsional spring 29, coiled on the rock-shaft 24 and having one arm extended along and in engagement with the lower face of the table 21 and the other arm extended over and in engagement with the ratchet-arm, as shown clearly in Fig. 3. A hand-lever 30 is formed on the end portion of the rock shaft 24 opposite to the ratchet-arm 26 and approximately parallel therewith. The hand-lever extends obliquely from the rock-shaft 24 between the tables 10 and 21, near the right end of the tables.

It is the function of the ratchet-arm 26 in engagement with the detent 22 to hold the tables in given positions relative to each other. When it is desired to lower the upper table 21, the lever 30 is lifted by the fingers of the right hand of the user, and in the lifting of said lever the rock-shaft 24 is moved rotatably and lifts the ratchet-bar, so that the teeth 27 thereof clear the detent, the aperture 23 of the detent permitting such lifting of the ratchet-bar. When the ratchet-bar is lifted, the table 21 may be moved forward and downward, the crank-shafts 12 13 swinging with said table, and upon a relaxation of the manual force applied to the lever 30 the spring 29 will reseat the ratchet-bar in engagement with the detent and lock one table to the other in the desired position—as, for instance, as shown by dotted lines in Fig. 1. The table 21 may be lifted relative to the table 10 without manipulation of the hand-

lever, since the ratchet-bar 26 will move one way through the detent without engagement therewith other than by friction arising from the pressure thereon of the spring 29.

This device is of great advantage to book-keepers, recorders, transcript-clerks, and copyists who have to write on the lower portions of thick books, in that it provides a rest for the pen-arm of the user while making entries near the lower margins of the pages. Of course when entries are to be made on the upper surface of a thin portion of the book, as on the left side near the front or on the right side near the back, the arm-rest may be dispensed with; but when inscribing the middle portions of the book the tables may be adjusted to desired distances of separation and the device positioned adjacent the lower end of the page to be inscribed, there serving to support the pen-arm of the user at the desired level or plane relative to the surface being written upon.

I claim as my invention—

1. An arm-rest, comprising the tables parallel with each other, the crank-shafts flexibly connecting said tables and the ratchet-bar connecting said tables between said crank-shafts.

2. An arm-rest, comprising the table 10, the bearings thereon, the crank-shafts having crank ends pivoted in said bearings, the bearings on the middle portions of the crank-shafts, the table 21 fixed to the latter bearings and means for locking the tables relative to each other.

3. An arm-rest, comprising the table 10, the bearings thereon, the crank-shafts having crank ends pivoted in said bearings, the bearings on the middle portions of the crank-shafts, the table 21 fixed to the latter bearings, the detent on the table 10 and the ratchet-arm pivotally mounted on the table 21 and engaging said detent.

4. An arm-rest, comprising the table 10, the lugs thereon, the bearings on said table, the crank-shafts having crank ends pivoted in said bearings, the bearings on the middle portions of the crank-shafts, the table 21 fixed to the latter bearings, the detent on the table 10, the rock-shaft on the table 21, the ratchet-arm on the rock-shaft extending through and arranged for engagement with said detent, the spring acting on said ratchet-arm and the hand-lever on the rock-shaft.

5. An arm-rest, comprising the tables, the crank-shafts flexibly connecting said tables parallel with each other, the detent fixed to one table, the rock-shaft on the other table, the ratchet-arm on said rock-shaft extending through and spring-held in engagement with said detent, and the hand-lever on the rock-shaft whereby the ratchet-arm may be detached from the detent.

Signed by me at Des Moines, Iowa, this 8th day of October, 1902.

GUY SMITH.

Witnesses:
S. C. SWEET,
W. E. ELLIS.