(No Model.)

C. E. KELLS, Jr.

DENTAL CHAIR CRANK.

No. 248,474. Patented Oct. 18, 1881.

Fig. 1.

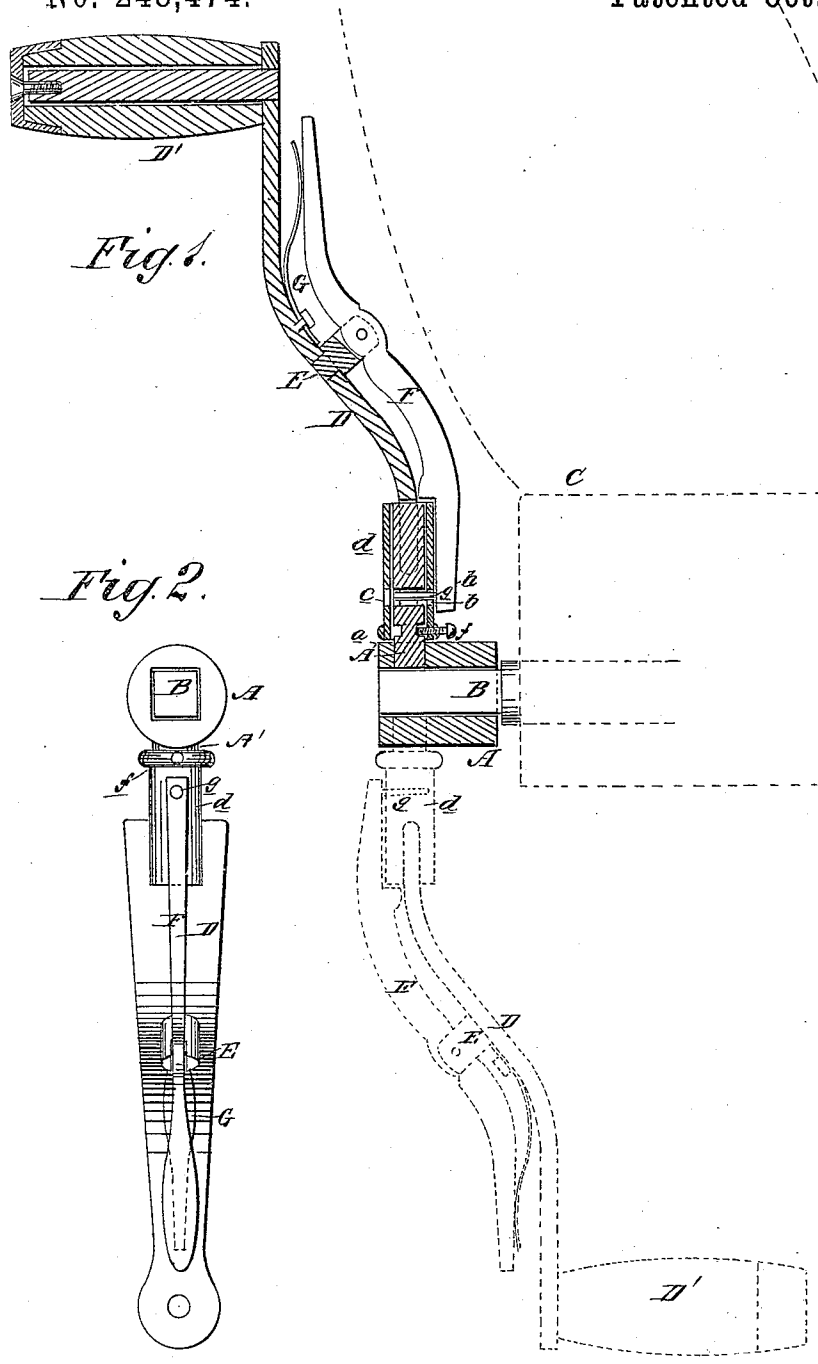


Fig. 2.

WITNESSES:

Francis M. Ardle,

C. Sedgwick

INVENTOR:

C. E. Kells, Jr.

BY Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

C. EDMUND KELLS, JR., OF NEW ORLEANS, LOUISIANA.

DENTAL-CHAIR CRANK.

SPECIFICATION forming part of Letters Patent No. 248,474, dated October 18, 1881.

Application filed August 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDMUND KELLS, Jr., of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Dental-Chair Crank, of which the following is a full, clear, and exact specification.

The object of this invention is to provide a crank for attachment to a dental or other adjustable chair, the handle of which crank can be turned into any desired position with relation to the socket without removal of the crank from the crank-shaft.

The invention consists of a reversible or revolving crank attached to a crank socket or boss, and capable of being locked in any desired position by a spring-actuated pawl and retaining-pin or equivalent device, all of which will be hereinafter described.

Referring to the accompanying drawings, Figure 1 is a partly-sectional side elevation of the device applied to a chair. Fig. 2 is a rear elevation of the device.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the boss of the crank, designed to fit upon the crank shaft or arbor B of a chair, (indicated in dotted lines at C.) Said boss A has projecting from it, at right angles to its bore, a fixed round pin, A′, having annular grooves *a b*, through the latter of which a perforation, *c*, is made through said rod A′.

The crank arm or web D, consisting of a doubly-curved flat metal bar terminating at one end in a sleeve, *d*, is fitted upon this rod A′, and held in place so that it can revolve thereon by a set-screw, *f*, that is entered through the sleeve *d* into the groove *a* of the rod A′.

Pivoted in a post, E, that projects from the rear of the crank arm or web D, at about the center thereof, is an extension-pawl, F, from one end of which projects a retaining-pin, *g*, that enters a hole, *h*, in the sleeve *d*, and also into the hole *c* in the rod A′ when the said crank-arm D is to be locked. A spring, G, having one end fastened on the crank-arm D, bears with its other end upward against the free end of the pawl F, thereby holding the pin *g* engaged in the rod-hole *c*, and holding the crank arm or web D locked.

To the upper or free end of the crank arm or web D is attached the handle D′.

When the pin *g* is engaged in the rod-hole *c*, as shown in Fig. 1, the crank arm or web D is locked, with the handle D′ pointing outward, and on pressing on the free end of the pawl F, the said pin *g* is disengaged, and the arm or web D can be rotated upon its boss A while turning the crank-shaft B for adjusting the chair C in desired position, so that the grasp or handle D′ may be turned inward out of the way of the operator, as shown in dotted lines, Fig. 1, without removing the said crank from its shaft.

In adjustable dental chairs in ordinary use the crank arm or web requires to be frequently turned, and if left on the crank-shaft it is constantly interfering with the movements of the operator in passing around the chair, and consequently the crank must be removed, to be replaced again for making any change in the adjustment of the chair. This frequent removal and replacement occasions much loss of time and inconvenience.

In my improved device the crank arm or web can be rotated to any desired position while still on the crank, so that it can be turned entirely out of the way of the operator, as indicated in dotted lines, Fig. 1.

I do not claim the broad idea of making crank-bosses that revolve in their webs; but,

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the boss A and arm or web D, of the pin A′, sleeve *d*, and extension-pawl F, substantially as herein shown and described, whereby the crank-web is adapted to be rotated upon its boss during the motion of the crank-shaft, and also to be set and held in any desired position in relation to the crank-shaft without removing the crank from its shaft, as set forth.

2. An improved dental-chair crank, constructed substantially as herein shown and described, consisting of boss A, provided with pin A′, revolving arm or web D, and movable retaining-pin *g*, as set forth.

3. In a dental-chair crank, the combination, with the crank-arbor boss A, provided with grooved and perforated pin A′, of the arm or web D, provided with perforated sleeve *d* and set-screw *f*, post E, and spring-actuated extension-pawl F, provided with retaining-pin *g*, substantially as herein shown and described.

4. In a dental-chair crank, the combination, with the crank-arbor boss A and revolving arm or web D, of the pawl F, provided with retaining-pin *g*, substantially as herein shown and described, whereby said handle is locked, as set forth.

CHARLES EDMUND KELLS, JR.

Witnesses:
W. M. BARTLETT,
W. H. STUART.