C. S. COOKE.

PAPER CLIP.

APPLICATION FILED APR. 2, 1915.

1,190,265. Patented July 11, 1916.

Fig. 1.

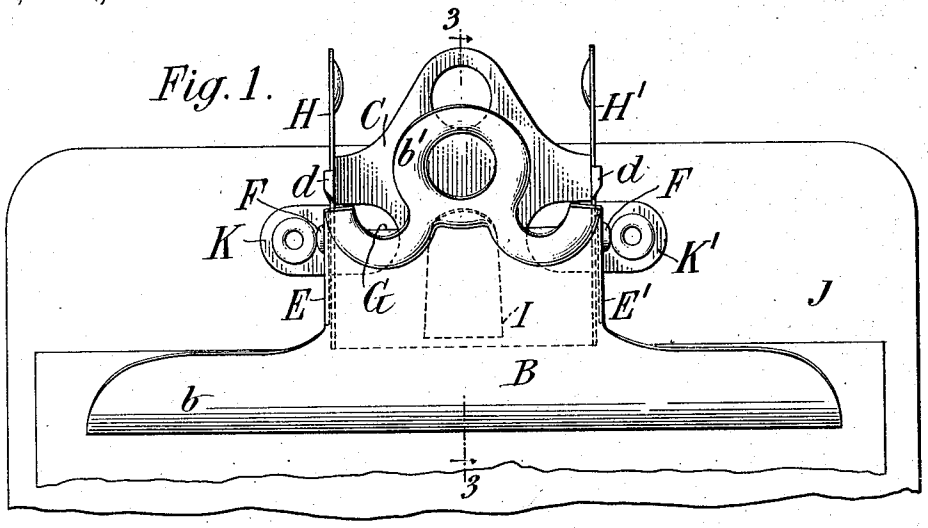


Fig. 2.

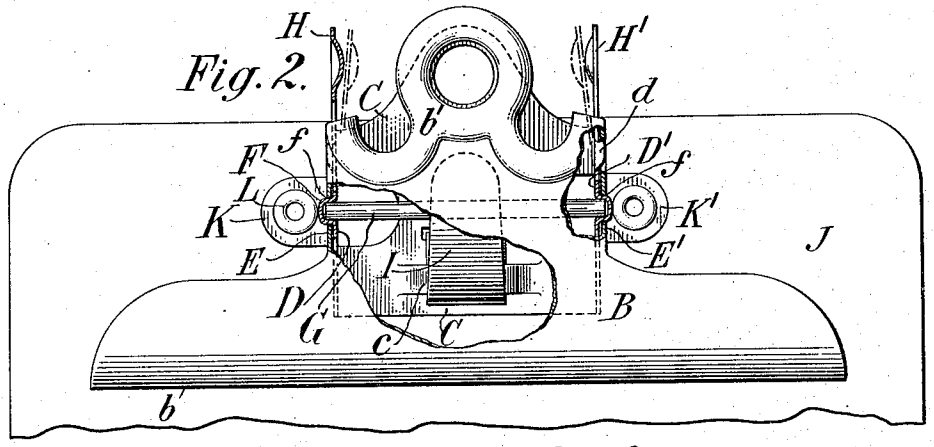


Fig. 4

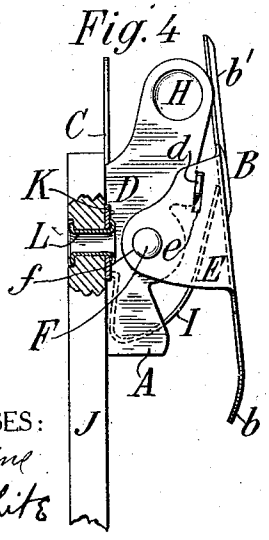
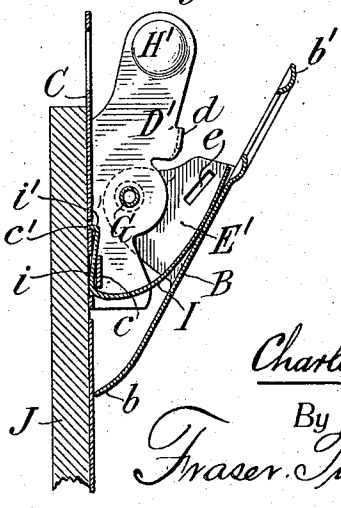


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PAPER-CLIP.

1,190,265. Specification of Letters Patent. Patented July 11, 1916.

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To all whom it may concern:

Be it known that I, CHARLES S. COOKE, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Paper-Clips, of which the following is a specification.

My invention relates to paper clips, particularly that class of such devices wherein the clamping member of the clip is maintained in open or elevated position by means which operate automatically when the clamp is opened and hold the same in such position until released.

My invention has for its object to provide an improved construction of such device which shall be compact, shall have no parts which are apt to get in the way and make the device unwieldy, shall be of a simple construction and therefore cheap, and shall possess the requisite strength and durability.

A further object of the invention is to provide a device wherein but few parts are contained, and consequently, the device is not apt to get out of order.

A desirable form in which my invention may be constructed is illustrated in the accompanying drawings, wherein,

Figure 1 illustrates a top view of my device. Fig. 2 is a similar view partly broken and illustrating in dotted lines the spring movement of the finger-pieces. Fig. 3 is a cross-section on the line 3—3, Fig. 1, looking toward the right, illustrating the device closed. Fig. 4 is an end view partly in section, illustrating the device open.

According to my invention the paper clip is composed of two principal members, to wit, a supporting member A and a clamping member B. Each of these members has engaging parts shown as ears which project toward and overlap one another, and in the ears pivotal supporting devices for the clamping member are provided. A spring is employed to hold the clamping member closed. The ears in the supporting member are provided with projections which enter corresponding recesses in the ears in the clamping member when the clamp is opened, and for this purpose the ears in the supporting member are at the point where the projections are located spring pressed toward the opposite ears, so that the projections will enter the recesses when the clamping member is opened. Finger-pieces are provided associated with the projections for withdrawing the same from the recesses when it is desired to close the clamping member.

In the specific form in which I have illustrated the invention, the supporting member A is formed of a single piece of metal. It has a center or base plate C and its sides are bent up to form two ears, D D′, each of which is provided with an outwardly extending projection *d*. The clamping member B is similarly formed in one piece with the usual clamp *b* and finger-piece *b′*, and has two downwardly extending ears, E E′, each of which has recesses *e*. These recesses are so situated with relation to the projections *d* that when the clamp is opened they will register with the said projections. In the particular construction illustrated the ears E E′ are outside of the ears D D′, and therefore the rearward extension of the said ears D D′ are normally held outwardly at the part where the said projections are located, but are capable of being sprung inward slightly. As the clamp is opened, the ears E E′ will ride over the said projections *d*, the forward edges of which are beveled to facilitate this and the said projections will be pressed inwardly until they register with the recesses *e*, whereupon they will enter the recesses and hold the clamp in opened position until they are withdrawn. For the purpose of holding the said ears D D′ in correct position and of providing pivotal bearings for the clamping member, I construct the ears D D′ with bosses F in each of the said ears, and the ears E E′ have apertures *f* therein which fit over the said bosses and provide pivotal bearings for the clamping member B. In order to hold the members D D′ extended so that the clamping member will be properly supported thereon, and that the projections *d* will always be in proper position to enter the recesses *e*, I provide a stay rod G, the ends of which are situated within the opposite bosses F and which serve to maintain the said ears in position.

For the purpose of withdrawing the projections *d* from the recesses *e*, I provide the ears D D′ with rearwardly extending finger-pieces H H′, and it will be seen that by pressing these finger-pieces together the projections *d* will be withdrawn from the recesses and the clamp B will fly to closed position, and thereupon the finger-pieces H

H′ and the projections *d* will be immediately spring-pressed back to normal position. The parts are held in normally closed position by a spring I which may be a flat band spring as illustrated, bent to the proper shape. The said spring in the form shown is supported by having its lower end bent at *i* to pass under a strip *c* cut from the body of the base plate C, and a toe *i′* on the spring is adapted to enter a slot *c′* in the base plate and hold the spring in position. The opposite end of the spring bears against the underside of the clamp B and normally presses the same to closed position.

I have illustrated a desirable way of attaching the supporting member A to the board J on which the same is usually mounted, and this consists of attaching lugs K K′, which are cut from the base plate C between the ears D, D′ and are bent outwardly in the same plane as the said base plate, so that their bases are attached to the side ears D D′. These lugs K K′ may be attached by eyelets L, as illustrated in Fig. 4, which pass through perforations in the said lugs and are secured to the board J.

Fig. 2 illustrates in dotted lines the position of the finger-pieces when pressed together for the purpose of releasing the lugs *d* from the recesses *e*, and it will be seen that this release is effected without interfering with the bearings, by reason of the stay rod G.

Preferably the paper clip is made of some sheet metal, as sheet iron or steel, which possesses the necessary strength and stiffness, and at the same time is sufficiently springy to enable the parts to operate as described.

While I have illustrated the most desirable form now known to me in which my invention may be constructed, it is not necessarily the only form in which the said invention may be employed, as equivalent devices may be substituted for those illustrated within the limits of the appended claims.

What I claim is:—

1. In a paper clip, a supporting member, a clamping member and means for pivotally connecting said members, a spring tending normally to press said clamping member to closed position, recessed ears on one of said members and projections on the other member, said projections and ears being relatively spring-pressed laterally toward each other whereby said projections are adapted to enter said recesses when the clamp is open and hold the clamp in such position until withdrawn.

2. In a paper clip, a supporting member having ears, a clamping member having ears and pivotal supports for said clamping member in said ears, the ears on one member having recesses and projections on the other ears, said respective sets of ears relatively spring pressed toward each other whereby said projections are caused to spring into said ears when the clamp is opened, and hold the clamp in such position until withdrawn.

3. In a paper clip, a supporting member having ears, a clamping member having ears, and pivotal supports in said respective ears for said clamping member, the ears on the clamping member having recesses and projections on the ears in the supporting member, said projections normally spring pressed toward the other ears and adapted to enter the said recesses when the clamp is opened and hold the clamp in such position until withdrawn.

4. In a paper clip, a supporting member having ears, a clamping member having ears, the ears in one of said members having apertures and bosses in the other ears adapted to enter said apertures and provide pivotal bearings for said clamping member and a rod having its ends in said bosses, the ears on the clamping member having recesses and projections on the ears in the supporting member, said projections normally spring pressed toward the other ears and adapted to enter the said recesses when the clamp is opened and hold the clamp in such position until withdrawn.

5. In a paper clip, a supporting member having ears, a clamping member having ears, and pivotal supports in said respective ears for said clamping member, the ears on the supporting member located between the ears on the clamping member and having projections spring pressed outwardly and adapted to enter recesses in the ears on said clamping member when the clamp is opened and hold the clamp open until withdrawn.

6. In a paper clip, a supporting member having ears, a clamping member having ears, and pivotal supports in said respective ears for said clamping member, the ears on the supporting member located between the ears on the clamping member and having projections spring pressed outwardly and adapted to enter recesses in the ears on said clamping member when the clamp is opened and hold the clamp open until withdrawn, and finger-pieces associated with said projections for withdrawing the same from said recesses.

7. In a paper clip, a supporting member having ears, a clamping member having ears, pivotal supports for said clamping member in said ears, projections in one set of ears at the rear of the pivotal point, and recesses in the other, said projections relatively spring pressed toward said recesses so as to spring therein when the clamp is open, finger-pieces associated with said projections and adapted to move the projections against their spring pressure to withdraw them from the recesses and a stay rod

to prevent movement of the ears at the pivotal point.

8. In a paper clip, a supporting member having a base plate, the sides of which are bent up to form ears, attaching lugs cut from the metal of said base plate which lies between said ears and having their bases integral with the ears and bent to extend outwardly beneath the ears in the plane of the base plate.

9. In a paper clip, a supporting member having a base plate, the sides of which are bent up to form ears, attaching lugs integral with said ears and cut from said base plate and bent to extend outwardly from the ears in the plane of the base plate, said ears having outwardly extending bosses and a stay rod in said bosses, rearwardly projecting finger-pieces integral with said ears and outwardly extending projections between said bosses and said finger-pieces.

10. In a paper clip, a supporting member having a base plate, attaching members integral therewith, upwardly extending ears, bosses therein, a stay rod in said bosses, rearwardly extending finger-pieces and outwardly extending projections between said finger pieces and said bosses, a clamping member, downwardly extending ears thereon having apertures to fit over said bosses, and having recesses adapted to receive said projections when the clamp is open, and a spring between said supporting member and said clamping member.

11. In a paper clip, an operating member having ears, a clamping member having ears, the ears in one of said members having apertures, and bosses in the other ears adapted to enter said apertures and provide pivotal bearings for said clamping members, and a rod having its ends in said bosses.

12. In a paper clip, a base member, a pivotally mounted clamping member, parallel overlapping ears connected to said respective members, and said overlapping ears spring pressed toward each other, and means associated with said ears causing them to interlock when the clamp is opened, the inner engaging ear adapted to be pressed inwardly when the clamp is locked open to release the lock.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES S. COOKE.

Witnesses:
A. T. GARLAND,
W. A. COOKE, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."