H. HELZMAN AND S. BRAININ.

PAPER OR BILL FILE.

APPLICATION FILED SEPT. 12, 1919.

1,396,428.

Patented Nov. 8, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

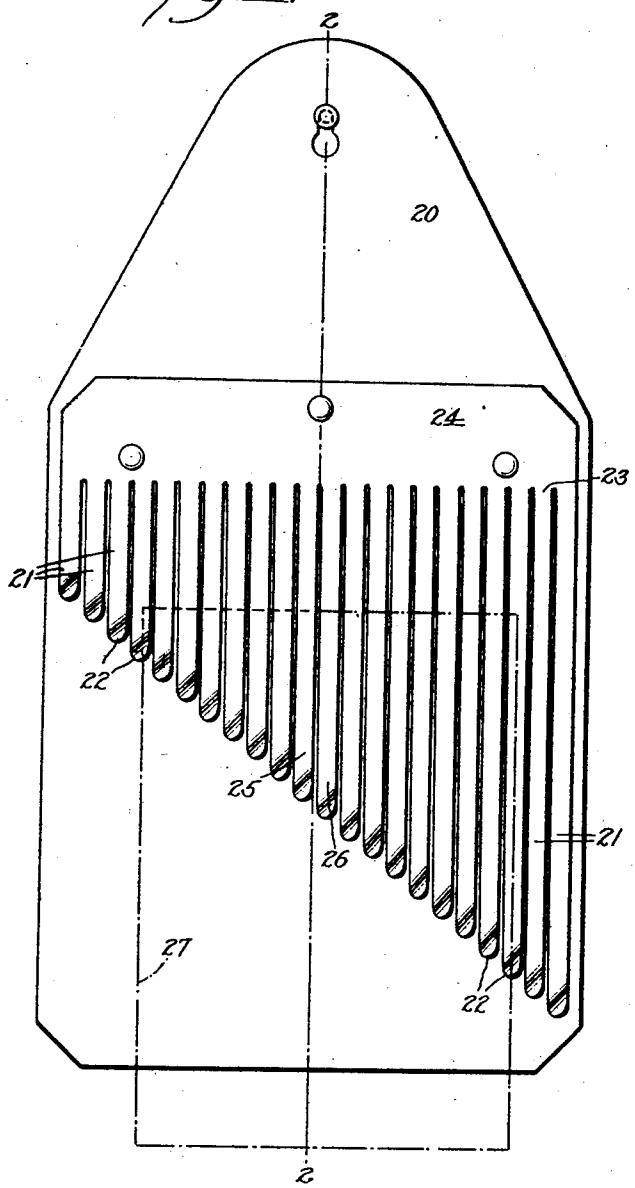
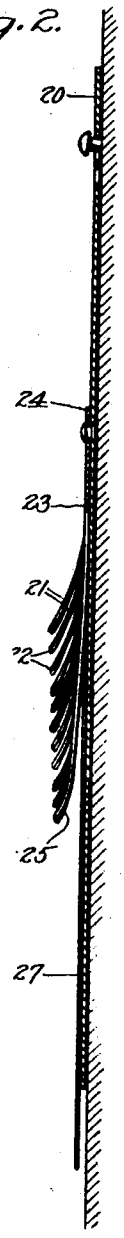


Fig. 2.



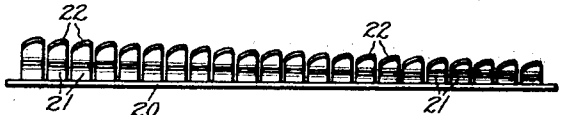


Fig. 3.

WITNESSES

INVENTORS
HERMAN HELZMAN
SOLOMON BRAININ
BY Munn & Co
ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 8.

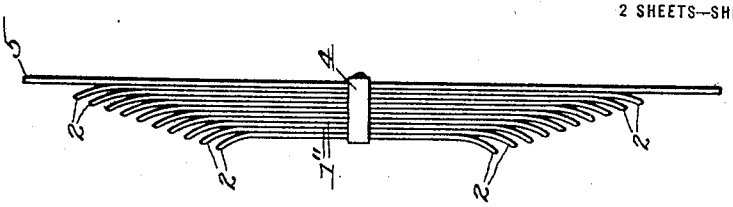


Fig. 6.

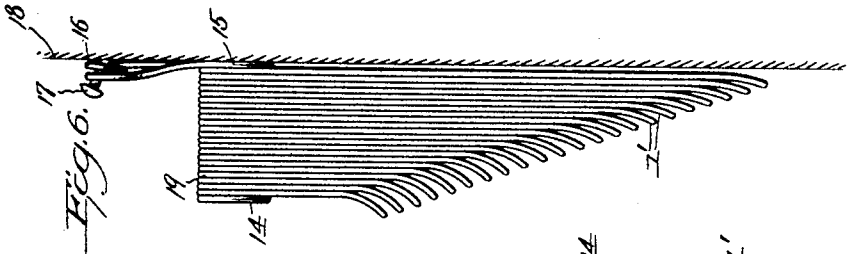


Fig. 7.

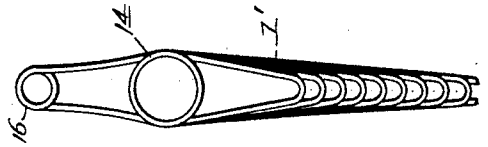


Fig. 5.

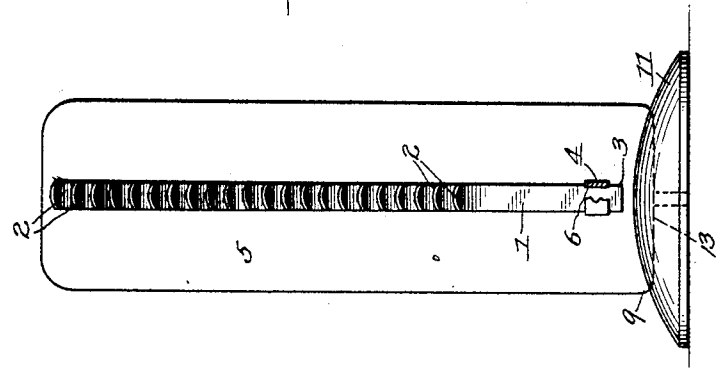
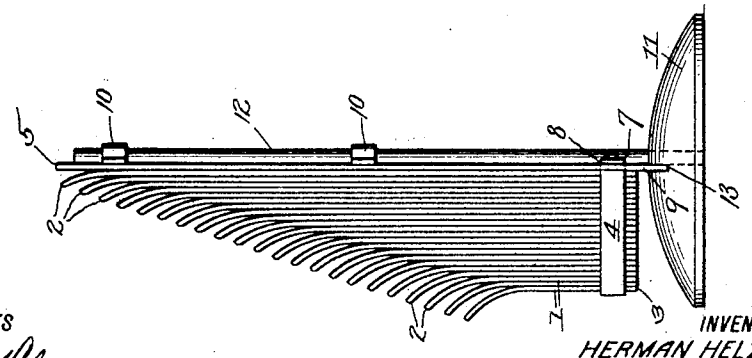


Fig. 4.



WITNESSES

Olive K. Holmes

P. D. Rollhaus

INVENTORS

HERMAN HELZMAN

SOLOMON BRAININ

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

HERMAN HELZMAN AND SOLOMON BRAININ, OF NEW YORK, N. Y.

PAPER OR BILL FILE.

1,396,428. Specification of Letters Patent. Patented Nov. 8, 1921.

Application filed September 12, 1919. Serial No. 323,281.

To all whom it may concern:

Be it known that we, HERMAN HELZMAN, a citizen of Poland, and SOLOMON BRAININ, a citizen of Russia, both residents of the city of New York, borough of the Bronx, county of Bronx, and State of New York, have invented a new and Improved Paper or Bill File, of which the following is a full, clear, and exact description.

This invention relates generally to a new and improved file, and is particularly adapted for portable use, and so constructed that papers, bills, correspondence and the like may be filed therein. It is understood however, that this file is not to be limited in use to the articles above stated.

One of the objects of this invention is to provide a file of simple and rugged construction, and which is inexpensive to manufacture, and which may readily be used as a portable file.

A further object of this invention is to provide a file of such construction that it may readily be made of one piece of metal, either wire or sheet, and so arranged as to present a plurality of spring like fingers of varying lengths, and preferably overlying each other so that individual bills or pieces of the matter filed, may be separately or independently removed from the file without disturbing or interfering with the arrangement of the remaining matter carried by the file.

A further object of this invention is to provide a file having its parts so constructed and arranged that papers or other matter to be filed may independently be placed in and removed from the file as separate pieces without interfering with or disturbing other papers or the like which may be held by the file.

Other objects and advantages will be apparent from the following description, and the accompanying drawings showing a practical embodiment and certain modifications of the invention.

Similar characters of reference designate like parts in the several views.

In the drawings,

Figure 1 is a face view showing a file embodying one of the forms of this invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, showing a sheet of paper held in position.

Fig. 3 is a bottom plan view of Fig. 1.

Fig. 4 is a side elevation showing a practical embodiment of the invention.

Fig. 5 is a front elevation of Fig. 4.

Fig. 6 is a side elevation showing a modified form of the invention, in which the overlying spring fingers are formed of a continuous piece of wire.

Fig. 7 is a front elevation of Fig. 6.

Fig. 8 is a side elevation showing another modified form of the invention.

In Figs. 4 and 5 of the drawings showing a practical embodiment of the invention, the file is shown as comprising a plurality of fingers 1, which are preferably formed of any suitable resilient material which are preferably formed of sheet metal, but any suitable resilient material may be used. The fingers are formed of varying lengths, one end 2 of each of the fingers being preferably slightly bent. The fingers of the file when assembled, overlie each other, the other end 3 of the fingers preferably being in alinement, and a suitable securing means 4 being provided to hold the fingers in proper relative position. A back 5 is preferably provided on which the assembled spring fingers are mounted. Preferably, the securing means comprises a band 4 which embraces one end of the spring fingers arranged in contiguous relation, each of the fingers being provided with a slotted portion 6 to receive the band. The ends 7 of the band are preferably inserted through suitable openings 8 in the back 5, and there positioned or secured in any other suitable manner, thus holding the contiguous overlying spring fingers in proper fixed relation. It is to be understood however, that the spring fingers may be held in proper position by any suitable means, this invention not being limited to the particular form shown. Preferably, the lower end of the back extends below the bottom of the fingers, and suitable loops 10 are fixed to the rear of the back, so that the file may be conveniently placed upon a desk, by supporting it on a suitable standard such as the one shown, comprising a base 11 and a rod 12 supported therein. The base 11 is provided with a slot 13 to receive the lower end 9 of the back, whereby the same is held in proper position.

A modified form of the invention is shown in Figs. 6 and 7, in which the spring fingers 1′ of the file are formed of wire, shaped to form fingers of varying lengths. At the beginning of the wire it is preferably bent to

form a loop 14, and at the end, the wire is bent to form another loop 15 and then extended and bent to form a loop 16 whereby the file may conveniently be placed on a hook 17 arranged in a wall or other suitable support 18. As a means of holding one end 19 of the loop wire fingers in proper relative position, solder is preferably used, but it is understood any suitable means may be provided for this purpose.

Still another modified form of the invention is shown in Fig. 8, in which the spring fingers 1'' are arranged in contiguous relation, and a suitable securing means such as a band 4 being arranged between the bent ends 2 of the fingers, to hold the spring fingers in proper relative position. It is to be understood however, that any suitable securing means may be positioned intermediate the ends of the fingers arranged as shown, to hold the same in proper position. It is thus seen that by providing a construction in which each of the ends of the contiguous fingers are exposed offset and bent, that either end of the file may be used. Further, by providing such a construction, the file may be used as a classification file for keeping papers or other matters having a common characteristic together.

Another modified form of the invention is shown in Fig. 1, wherein a suitable back 20 is provided on which is suitably mounted the spring fingers 21 arranged in contiguous relation thereon. In the form shown, the ends 22 of the fingers are bent, the ends of the series of fingers terminating on a line extending transversely at an angle to the length of the fingers. Preferably, the fingers are stamped from one piece of sheet metal, so that one end 23 of the fingers will have an integral connection with a common strip 24. There is shown in Fig. 1, the position occupied by a piece of paper 27 or other matter inserted between two of the fingers 25 and 26. That portion of the paper indicated by the dot and dash line, represents the part exposed, to view, and that portion indicated by the dash line, represents the part of the paper which lies between the fingers and the back 20.

While certain forms of the invention have been shown and described herein, it is to be understood that the invention is not limited thereto, but various changes and modifications may be made thereof without departing from the spirit and scope of this invention.

We claim:

1. A file comprising a plurality of spring fingers, of varying lengths arranged in contiguous relation, adapted to be formed from a single piece of material.

2. A file comprising a plurality of spring fingers of varying lengths, arranged in contiguous relation, adapted to be formed from a single piece of material, the said fingers overlying each other, and having the ends thereof slightly turned up and exposed.

3. A bill file comprising a plurality of contiguous overlying spring fingers, formed of wire, by bending the wire to form overlying fingers of varying lengths, and means connected therewith for supporting the file.

4. A file comprising a plurality of contiguous spring fingers, said fingers being of gradually varying length, means for securing one portion of all of the fingers together in parallelism and alinement, the free ends of said fingers being bent in varying curvatures away from the longitudinal plane of the fingers, and having their extremities spaced a uniform distance apart.

5. A file comprising a plurality of contiguous spring fingers, said fingers being of gradually varying length, means for securing one end of all of the fingers together in parallelism and alinement, the free ends of said fingers being bent in varying curvatures away from the longitudinal plane of the fingers, and having their extremities spaced a uniform distance apart.

HERMAN HELZMAN.
SOLOMON BRAININ.