

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.

Abogado
Helmer Zuluaga V.
(Apoderado)

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 07-047216- -00002-0000

Fecha: 2010-04-14 15:07:56 Dep. 2020 DIR.NUEVASCR
Tra. 3 MODELO Eve: 1 REGDEPOSITO
Act. 519 TRASLADOINFORME Folios: 1

ASUNTO	Radicación	07 – 47 216
	Trámite	003
	Evento	001
	Actuación	430
	Oficio	005013
	Folios	016

Patente de Invención ☐ Patente de Modelo de Utilidad ☒

Como resultado del examen de fondo, realizado con fundamento en el artículo 85 en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. De los documentos estudiados

Descripción: Folios 3 a 5 como se radicó inicialmente

Reivindicaciones: Folio 8 como se radicó inicialmente

Dibujos: Folios 6 y 7 como se radicó inicialmente

2. Del objeto de la solicitud

Título de la solicitud: *Lima triangular doble*, Folio 1.

El objeto de la presente solicitud de patente de modelo de utilidad consiste en suministrar una herramienta para desbastar, en forma de lima de sección triangular, que tiene los dos extremos adecuados para trabajar. Uno de los extremos se inserta en un mango mientras que el otro se utiliza hasta que se haya desgastado y entonces se utiliza el extremo gastado para insertarlo en el mango mientras se emplea el extremo opuesto, que no ha sido empleado para limar.

El problema planteado en esta solicitud es lograr una mayor eficiencia en las herramientas manuales para desbastar o afilar.

Para solucionar este problema técnico la solicitud en estudio proporciona una lima que tiene los dos extremos dotados de dientes, de tal forma que al insertar el primer extremo dentro de un mango, se emplea el segundo extremo para limar; y, al desgastarse el segundo extremo, se desmonta el primer extremo del mango y

se inserta el segundo extremo en el mango, para emplear el primer extremo para limar.

Clasificación Internacional de Patentes (IPC): B24D 15/02

3. De la solicitud de Patente de Modelo de Utilidad

Antes de entrar en detalles específicos, se le dan al solicitante ciertas indicaciones generales, algunas de las cuales son aplicables a este caso y todas deberán ser tenidas en cuenta en las eventuales modificaciones:

El título o nombre de la invención debe concordar con lo que se reclama en el capítulo reivindicatorio. Esto es, si en las reivindicaciones se reclama un producto, tal producto debe ser mencionado en el título, y si en las reivindicaciones se reclama un procedimiento o un sistema o un método, también debe ser mencionado allí. Normalmente, el título debe contener máximo diez palabras aunque eventualmente pueden ser más. El título no debe contener palabras cuyo significado no esté reconocido dentro del sector de la técnica de que se trate. Preferiblemente, deben ser palabras cuyo significado se encuentre en el Diccionario de la Real Academia Española (DRAE).

En Colombia, la máxima autoridad en cuestiones del lenguaje es la Academia Colombiana de la Lengua. En caso de duda sobre el significado de las palabras, se debe acoger la definición que trae el Diccionario de la Real Academia Española (DRAE).

En Colombia, es de uso obligatorio el Sistema Internacional de unidades. Esto implica, también, que la coma decimal es de uso obligatorio. Cuando aparezca algún valor con unidades diferentes a las exigidas, deberá incluirse su correspondiente conversión al Sistema Internacional.

La parte técnica de la solicitud se divide en tres secciones, debidamente separadas, preferiblemente en este orden: El capítulo descriptivo, el capítulo reivindicatorio y el juego de dibujos o figuras. Ninguna de estas secciones podrá llevar membretes (encabezamientos o pies de página) ajenos al contenido técnico de la solicitud.

Por lo menos el capítulo descriptivo debe estar debidamente paginado y estar escrito a doble espacio, con el fin de facilitar la referencia a los apartados del texto. Se debe evitar, en lo posible, el uso de mayúsculas corridas, hay que recordar que ese empleo equivale a gritar en el lenguaje oral. Se pueden emplear las mayúsculas para resaltar ciertos apartados del texto, pero si todo el texto está escrito en mayúsculas, nada queda resaltado.

La terminología empleada en la descripción y en las reivindicaciones debe ser igual para designar las diferentes partes, piezas, elementos, detalles o aspectos de lo que se mencione en ellas; los cuales, a su vez, deben estar designados con números o signos de referencia.

Dentro del texto de la descripción y las reivindicaciones se aconseja encerrar entre paréntesis el número o signo de referencia cada vez que se mencione el detalle correspondiente, con el fin de distinguirlo de otros tipos de números o signos que eventualmente aparezcan allí. Estos números o signos de referencia deben aparecer dentro del juego de dibujos (preferiblemente, sin paréntesis, aunque pueden estar encerrados dentro de un círculo) siempre acompañados de líneas o flechas que señalen o indiquen a qué parte, pieza, elemento o aspecto se encuentran asociados.

Las reivindicaciones deben estar numeradas individual y consecutivamente (1, 2, ... 5, 6, etc.) El capítulo reivindicatorio no debe tener subtítulos.

Normalmente se pueden encontrar dos categorías de reivindicaciones: una, la de producto y la otra, de procedimiento.

En las reivindicaciones se deben definir los alcances de la protección que desea el solicitante. En consecuencia, las reivindicaciones forman un cuerpo aparte de la descripción y como tal debe ser redactado: la primera vez que se mencione un nombre dentro de las reivindicaciones debería estar acompañado de un artículo indeterminado; y, la inclusión -entre paréntesis- de un número de referencia no sustituye la definición del elemento o aspecto al que se refiere, simplemente sirve de información complementaria. Se debe entender que la descripción sirve para interpretar las reivindicaciones y, en consecuencia, si en una reivindicación se reclama un aparato, por ejemplo, no se deberían mencionar aspectos del funcionamiento del aparato dentro de la reivindicación, limitándose a definir únicamente los elementos que constituyen el aparato.

Cada una de las figuras debe estar debidamente identificada, preferiblemente con un número consecutivo: Figura 1, figura 2, ...

Las figuras deben ser realizadas siguiendo las reglas del dibujo técnico.

Se prefiere que dentro de las figuras no se incluya ningún texto. Cada uno de los detalles ilustrados en las figuras deberá estar señalado con un número o signo de referencia, el cual será el mismo en todas las figuras en donde se encuentre el detalle en cuestión. Si en alguna figura no se encuentran números de referencia, se entiende que no se va a decir nada sobre ella dentro del texto de la descripción y, entonces, es preferible que se omita tal figura. Análogamente, si en una figura no se encuentra señalado algún detalle con el respectivo número de referencia, es preferible que se omita tal detalle.

La patente de **modelo de utilidad** no puede incluir los procedimientos, por definición. Si alguna de las reivindicaciones de una solicitud de patente de modelo de utilidad reclama un procedimiento, debe ser suprimida.

De la descripción (artículo 28 D. 486)

No se encontraron defectos de forma dignos de mención.

La descripción cumple con los requisitos de claridad y de completitud que exige el Art. 28 de la Decisión 486.

De las Reivindicaciones (artículo 30 D 486)

Durante el análisis del texto de las reivindicaciones se observaron los siguientes defectos:

Con el fin de facilitar el estudio de la solicitud y teniendo en cuenta que, adelante, se hacen objeciones a la patentabilidad, se hicieron algunas correcciones de oficio en la reivindicación única. A continuación se transcribe la reivindicación, con las partes editadas:

Lima triangular doble **caracterizada porque** ~~la lima~~ está conformada por un cuerpo de ~~forma~~ **sección** triangular (4) que tiene ~~dos~~ **una primera** (1) y **una segunda** (2) puntas; una serie de dientes ubicados en cada ~~área~~ **una de las** puntas; y, un mango (5) ~~**donde se donde se introduce uno de los extremos de la segunda punta (2), quedando la lima con el mango (5) como empuñadura y la otra mitad primera punta (1) disponible para realizar el afilado con la primera punta (4); una vez gastada la mitad de la lima por sus tres lados, se suelta el mango (5) con un golpe suave, se introduce el extremo la primera punta (1) gastado de la lima de nuevo al mango (5), quedando la segunda punta (2) e mitad de la lima disponible para afilar.**~~

En este texto, se han tachado las expresiones que afectan negativamente la concisión o la concordancia de los términos usados por el solicitante y se ha utilizado *cursiva* para señalar los términos insertados por el examinador. Encerrado entre asteriscos (**) está un apartado que no debe formar parte, propiamente, de una reivindicación de patente de modelo de utilidad, porque se refiere a un procedimiento o a una explicación del funcionamiento del objeto de la solicitud, más que a un producto -la lima-, que es lo que se está definiendo en la reivindicación. Dicha explicación normalmente debe estar dentro del texto de la descripción y allí, en efecto, la encontramos. El apartado en cuestión, entonces, se deja como información complementaria, pero se aclara que no forma parte de la porción característica del objeto de la solicitud y, preferiblemente, debería ser omitido. Según se desprende de la naturaleza de las correcciones realizadas por el examinador, la reivindicación presentada carece de concisión, de claridad y de definición.

En todo caso, el solicitante debe tener en cuenta que se ha objetado la falta de claridad, la falta de concisión y la falta de definición respecto a la reivindicación única y puede presentar una versión corregida en la cual se hayan subsanado tales objeciones.

El solicitante debe tener en cuenta que la descripción sirve para interpretar las reivindicaciones.

Se debería presentar, entonces, un nuevo capítulo reivindicatorio, donde se hayan corregido todas las objeciones que se han insinuado arriba. Esto con el fin de evitar -cuando solo se presentan algunas páginas sueltas corregidas- que el lector tenga que desplazarse desde un sitio a otro de la solicitud y luego regresar a donde estaba antes sin perder la ilación de la lectura, porque esto produce confusión y afecta negativamente la claridad de dicho capítulo.

Se le advierte al solicitante, sin embargo, que las modificaciones sugeridas arriba pueden resultar inconducentes si se mantienen las objeciones a la patentabilidad que se insinúan adelante.

4. De la determinación del estado de la técnica

La fecha que se ha tenido en cuenta para determinar el Estado de la Técnica es la

Fecha de presentación de la solicitud nacional 2007-05-11

Se realizó la búsqueda en el estado de la técnica de documentos relacionados con la solicitud teniendo en cuenta la fecha indicada; y durante la búsqueda de anterioridades se encontraron los siguientes documentos, que forman parte del estado de la técnica más cercano al objeto de la solicitud:

n.º	Documento	Título	Fecha de publicación
D1	Patente US 229 616, cuyo inventor es Hiram A. Kimball, quien le cedió la mitad de sus derechos a Arthur Miller	«Saw-file»(Una lima para sierras)	1880-07-06
D2	Patente US 281 626, cuyo inventor es Josiah F. French, quien le cedió la mitas de sus derechos a The J. Barton Smith Company	«File-handle»(Un mango para lima)	1883-07-17

n.º	Documento	Título	Fecha de publicación
D3	Patente US 1 406 924, cuyo inventor es Henry Briggs	«Guide or gauge for reciprocating hand tools»(Una guía o cartabón para herramientas de mano de vaivén)	1922-02-14
D4	Patente US 4 584 745, cuyo inventor es Arvie I. Seiber	«Double angled precision file»(Una lima de precisión con doble ángulo)	1986-04-29

Se anexa la copia de las páginas pertinentes de estos documentos

Se hizo la búsqueda de documentos relevantes en el Estado de la Técnica y se encontraron anterioridades que afectarían negativamente la patentabilidad del objeto de la presente solicitud.

Concretamente, en las figuras 1 y 2 del documento D2 se ilustra una lima triangular (F) que tiene dientes hacia cada uno de sus dos extremos (f), de tal manera que, cuando se introduce el primer extremo (f) en el mango (H), se puede usar el segundo extremo para limar; y, cuando se ha desgastado el segundo extremo, se saca el primer extremo del mango y se inserta el segundo extremo dentro del mango, de tal manera que se puede emplear el primer extremo para limar.

En el documento D1 se ilustra una lima de sección triangular, convencional, se cita aquí para facilitar la comparación de los extremos con los del objeto de la solicitud. En el documento D3 se ilustra otra solución similar a la expuesta por el solicitante, en donde se emplean simultáneamente, dos mangos, uno en cada extremo de la lima. Y, en el documento D4 se enseña una lima diferente, de sección ovalada, pero en la cual se pueden emplear ambos extremos.

NOTAS: No se realizó una evaluación de los demás requisitos de patentabilidad, porque se objetó la claridad, la concisión y la definición de la reivindicación única. En otras palabras, no se puede realizar una comparación formal por ausencia de materia. Una vez hayan sido superadas las objeciones establecidas en este Concepto Técnico, se podrán hacer los exámenes correspondientes.

No obstante lo anterior, con base en los documentos encontrados hasta el momento, se prevén objeciones respecto a la novedad del objeto solicitado.

5. Del análisis previo de unos requisitos de patentabilidad (artículos 81 y 82 D486)

La reivindicación que se debe analizar es la numerada 1, folio 8, que reclamaría, en resumen, una *Lima triangular doble **caracterizada porque** está conformada por un cuerpo de sección triangular que tiene una primera y una segunda puntas; una serie de dientes ubicados en la primera y en la segunda puntas; y, un mango.*

A continuación, se incluye un texto que contiene uno de los criterios que se emplean en esta oficina al estudiar la novedad.

(...) la identidad entre la pretendida invención y la anterioridad destructiva de su novedad no requiere ser literalmente total; basta

con que una persona técnicamente capacitada derive, de la anterioridad relevante, un contenido tecnológico idéntico al de la pretendida invención. En el contexto de la Convención de la Patente Europea, señalan Singer y Lunzer: "El requisito de que exista identidad sustancial entre lo que se reivindica y lo que haya sido previamente publicado en un documento anterior, a fin de establecer la publicación previa, no requiere algo de la naturaleza de una identidad fotográfica, ni que exista identidad de palabras para que el documento previo sea tenido por destructivo de novedad. (El Tribunal técnico de la Oficina Europea de Patentes) decidió que la mera novedad de forma con respecto al estado de la técnica, esto es, una mera diferencia de palabras entre la supuesta invención y el estado anterior de la técnica, no es suficiente para establecer la existencia de novedad. Por el contrario, al examinar la novedad, la cuestión a determinarse es si la técnica preexistente revela la sustancia de la pretendida invención, o bien si existe alguna enseñanza técnica novedosa que pueda ser encontrada en la pretendida invención y que no esté presente en la técnica preexistente."

Derecho de las patentes de invención por Guillermo Cabanellas de las Cuevas, 2a Ed., HELIASTA, Buenos Aires, 2004, págs. 679 y 680.

Citado en la oposición a CO 05 – 109 679 *Máquina de juego de ruleta* por Ernesto Rengifo García, Calle 70 4-30 Tel 2118014 ernesto@garridorengifo.com

Novedad (artículo 16 D486)

De acuerdo con lo establecido en el numeral 4, arriba, se encontró dentro del estado de la técnica un documento que evidenciaría la existencia previa del modelo de utilidad. En efecto, el documento D2 revela, entre otras cosas, una lima de sección triangular, que está conformada por: un mango; un cuerpo de sección triangular que tiene una primera y una segunda puntas; y, una serie de dientes ubicados en cada una de las puntas. Esto significa que cada una de las características que el solicitante le asignaría al producto que desea proteger mediante patente de modelo de utilidad ya era del dominio público desde antes de la fecha de presentación de la solicitud.

Lo reclamado en la reivindicación única no sería novedoso de acuerdo a lo estipulado en el Art. 16 de la Decisión 486 de la Comisión de la Comunidad Andina.

Sobre el mejor o diferente funcionamiento, la utilización o fabricación del objeto, o sobre la utilidad, ventaja o efecto técnico (Artículo 81 D486)

Lo reclamado en la reivindicación 1, transcrita en versión editada arriba, no especifica nada que no haya sido previsto antes, no hay ningún efecto técnico que distinga al objeto de la solicitud de lo que se conocía en el estado de la técnica. No se encontraría, en fin, ningún aspecto -de los determinados por la ley- que sea novedoso.

6. De las conclusiones:

Los requisitos de patentabilidad de la presente solicitud se encontrarían afectados negativamente por la falta de claridad, por la falta de definición y por la falta de concisión de la reivindicación única.

En cumplimiento del artículo 85 en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica al solicitante que debe

dar respuesta dentro del término de treinta días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el artículo 8 de la resolución reglamentaria n.º 00210 del 15 de enero de 2001, advirtiéndole que contra él no procede recurso alguno en la vía gubernativa.



ALIX CARMENZA CÉSPEDES DE VERGEL
Directora de Nuevas Creaciones (C)

El anterior requerimiento fue notificado por fijación en lista, de fecha
_____ **15 ABR. 2019**

CONCEPTO TÉCNICO n.º 1252

EXAMINADOR TÉCNICO
Código n.º 202009

(No Model.)

H. A. KIMBALL.
Saw File.

No. 229,616.

Patented July 6, 1880.

DI

FIG. 1

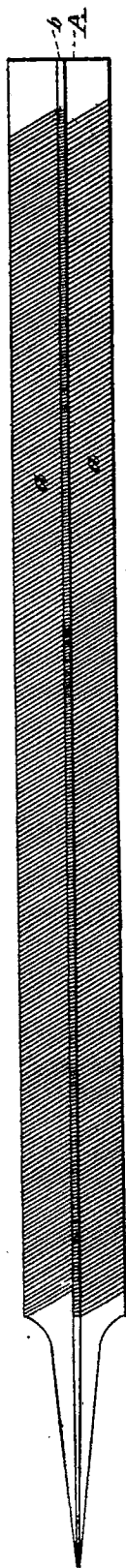


FIG. 2

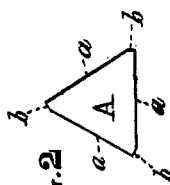
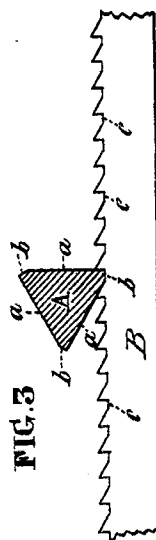


FIG. 3



Witnesses
Thomas J. Bewley
Ben. H. Wigley

Inventor
Hiram A. Kimball
per Stephen Ustick attorney

3437

21

UNITED STATES PATENT OFFICE.

HIRAM A. KIMBALL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF OF HIS RIGHT TO ARTHUR MILLER, OF SAME PLACE.

SAW-FILE.

SPECIFICATION forming part of Letters Patent No. 229,616, dated July 6, 1880.

Application filed March 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, HIRAM A. KIMBALL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Saw-Files, of which the following is a specification.

The object of my invention is such a construction of saw-files as will secure to saws filed with them a uniform strength, the files being of such form as to prevent any weak places being made in the filing, and thus to preserve the tensile strength of the saw as much as possible; and the nature of the invention consists in the construction of equilateral triangular files with flat corners, each of the corners being square with one of the sides, so that as the edge of either side having said flat corner is used in filing the front of the teeth the square edge will form straight surfaces between the teeth parallel with the back of the saw, while the contiguous side of said edge files the back edge of the teeth, as hereinafter fully described.

In the accompanying drawings, Figure 1 is a face view of a file having my improvement. Fig. 2 is an end view of the file. Fig. 3 is a side view of a portion of a saw with the improved file in position, the file being in cross-section.

Like letters of reference in all the figures indicate the same parts.

A represents an equilateral triangular file having a flat corner, *b*, square with one edge

of each side *a*, so that as this edge of either side is used in filing the fronts of the teeth the square edge *b* shall make short flat edges *c* at the roots of the teeth (seen in Fig. 3) parallel with the back of the saw-blade B, whereby the whole of each sunken surface is of equal strength, and the liability of the saw-blade being broken by sudden jars or strain is much less than when weak places are made at the roots of the teeth by the use of ordinary files.

I am aware that saws having the same construction have been produced by the use of two files. I do not therefore lay claim to such form of the saw, but merely to the improved file, whereby I accomplish the same work with one file instead of two and in one-half the time.

I claim as my invention—

The file A, the cross-section of which exhibits three sides, *a a a*, of equal angles, and a flat corner, *b*, at one edge of each side, so that said corner shall make straight-edge surfaces *c* upon the edge of the saw-blade, while the side *a*, square therewith, is used to file the front of the teeth, the said surfaces *c* being parallel with the back edge of the saw, thereby avoiding the making of weak places, and thus preserving the maximum tensile strength of the saw, substantially as set forth.

HIRAM A. KIMBALL.

Witnesses:

STEPHEN USTICK,
WILLIAM CONNELLY.

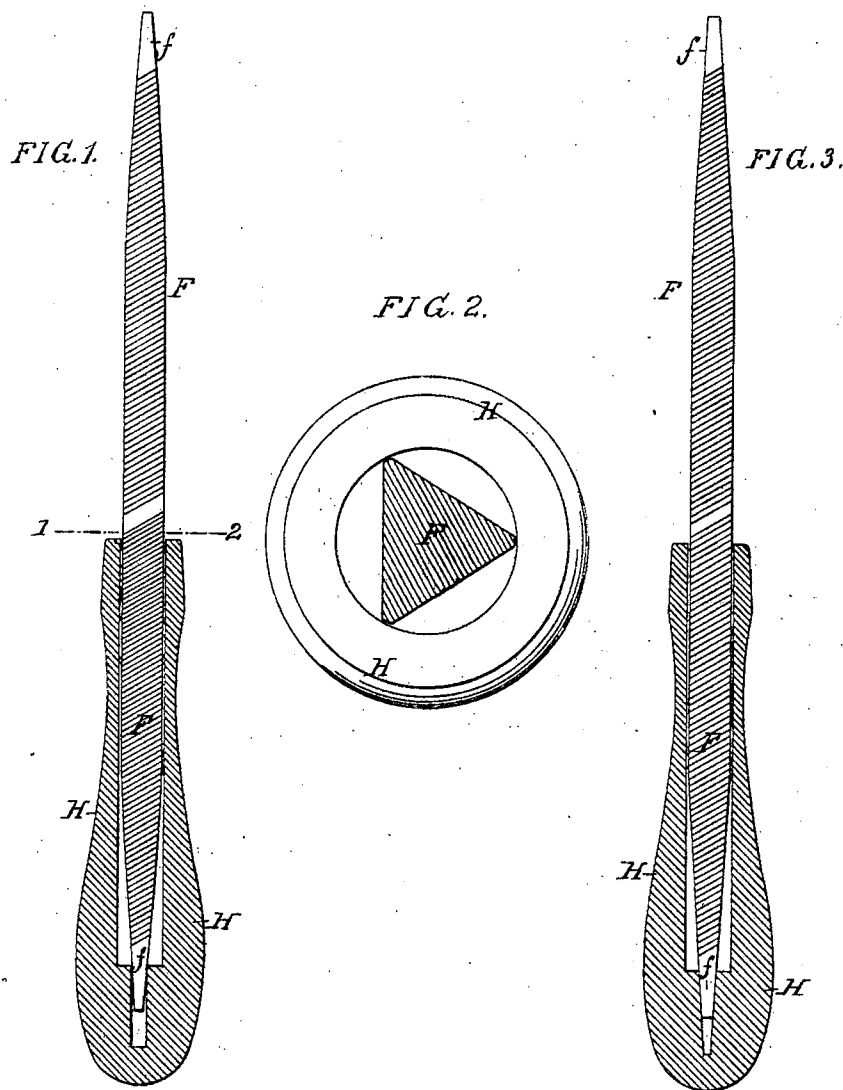
(No Model.)

J. F. FRENCH.
FILE HANDLE.

No. 281,626.

Patented July 17, 1883.

D2



WITNESSES:

James F. Tobin
Harry S. Achenfelter

INVENTOR:

Joshua F. French
by his Attorneys
Howson & Sons

3639

UNITED STATES PATENT OFFICE.

DZ

JOSIAH F. FRENCH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THE J. BARTON SMITH COMPANY, OF SAME PLACE.

FILE-HANDLE.

SPECIFICATION forming part of Letters Patent No. 281,626, dated July 17, 1883.

Application filed April 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH F. FRENCH, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in File-Handles, of which the following is a specification.

The object of my invention is to provide a reversible taper file with a handle from which the file can be readily withdrawn when it has to be reversed.

A further object of my invention is to determine the extent to which a portion of the file shall project from the handle.

In the accompanying drawings, Figure 1 is longitudinal section of my improved file-handle with the file in place; Fig. 2, an enlarged section on the line 1 2, Fig. 1, and Fig. 3 a longitudinal section of a modification.

In these drawings, F is a three-cornered double-ended file, and H is a wooden handle, of about half the length of the file. Heretofore in applying handles to files of this class the opening in the handle has been made of such a size that when either end of the file was inserted the toothed body of the file would fit closely in the wood, and on giving a slight turn to the file the teeth would become firmly jammed, so that it would be difficult to withdraw the file from the handle, and the latter, after being used for a short time, would be worn out. As the strain came principally on the open end of the handle, the latter had to be provided with a ferrule. To overcome these objections and enable the file to be easily inserted and withdrawn without lacerating the wooden handle, I make the opening in the handle for the toothed body of the file slightly larger than the said body, so that the latter will not fit closely into the wood of the handle, but may have its three corners free, as shown in Fig. 2. The bottom of the opening, where the smooth point *f* of the file comes, is of such a size as to form a socket for the said smooth point, which fits it closely.

In making the handle I prefer to bore a cylindrical hole of a diameter larger than the body of the file and about as long as half the toothed body of the file, and then at the bottom of this opening I bore a smaller cylindrical hole or recess, into which the smooth point of the file is forced, so as to fit tightly, while the toothed body is freely inclosed in the larger opening in the handle, the latter thus

protecting the hand of the operator from that half of the file not in use.

As the outer end of the file is held between the fingers of one hand, while the other grasps the rounded end of the handle, the principal strain comes on the opposite ends of the file in its to-and-fro movements, so that any grasp on the body of the file itself is unnecessary, and the outer end of my handle simply acts as a guide to keep the end of the file in place in the bottom of the handle. While the smooth point of the file may be forced quite tightly into place in its socket, it can very readily be removed for reversal without injury to the wood.

Instead of making the small recess or socket for the point *f* of the file cylindrical, it may be made tapering, as shown in Fig. 3, to correspond with the taper of the point.

In using files of this class, and especially for sharpening saws, it is important that there should be but little variation in the extent to which the points of the different files used shall project from the handle, for this distance determines the extent of the stroke by the operator, which should be maintained throughout in filing the different teeth. When the body of the file is made to fit tightly in the opening of the handle the extent of the projection of the point from the handle can never be determined, owing to slight variations in the sizes of different files, or the contraction of the orifices in the handles by the shrinkage of the wood. When the opening in the handle, however, is made slightly larger than the body of the file and there is an orifice in the end of the opening for receiving and retaining the end only of the said file, the distance of the outer point from the handle will always be determinate, or nearly so.

I claim as my invention—

The combination of a double-ended file with a handle, H, having an opening for the toothed body of about half the file larger in diameter than the said toothed body, and having at the end of the said opening a smaller opening or socket of a size to fit the smooth point of the file, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses: J. F. FRENCH.
HARRY L. ASHENFELTER,
HARRY SMITH.

Google

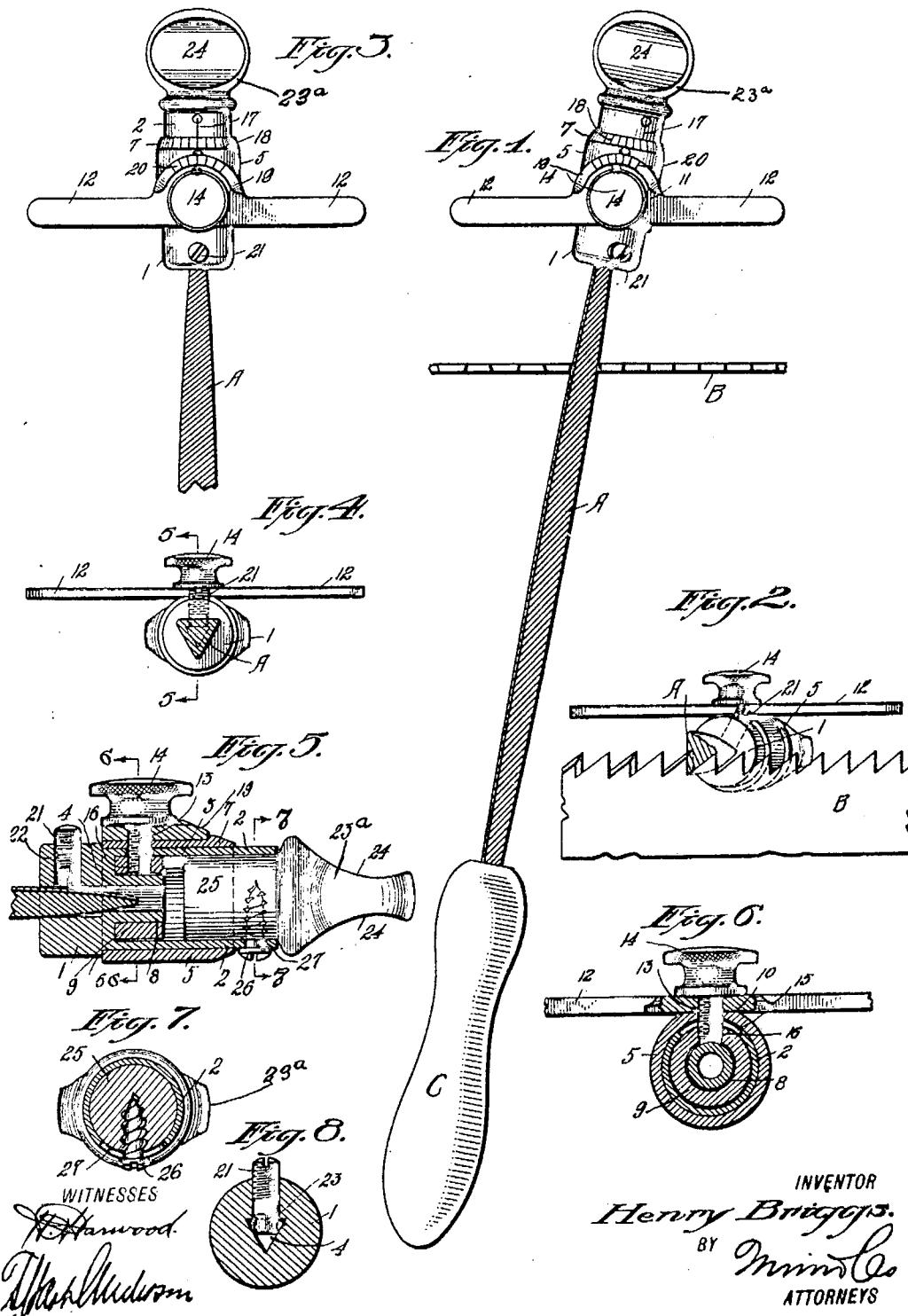
3740

H. BRIGGS,
GUIDE OR GAUGE FOR RECIPROCATING HAND TOOLS.
APPLICATION FILED JUNE 12, 1920.

1,406,924.

Patented Feb. 14, 1922.

D3



WITNESSES
H. Hamwood.
W. H. Hamwood.

INVENTOR
Henry Briggs.
BY Minn Co
ATTORNEYS

384

D3

UNITED STATES PATENT OFFICE.

HENRY BRIGGS, OF HASBROUCK HEIGHTS, NEW JERSEY.

GUIDE OR GAUGE FOR RECIPROCATING HAND TOOLS.

1,406,924.

Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed June 12, 1920. Serial No. 388,591.

To all whom it may concern:

Be it known that I, HENRY BRIGGS, a citizen of the United States, and a resident of Hasbrouck Heights, county of Bergen, and State of New Jersey, have invented a new and useful Improvement in a Guide or Gauge for Reciprocating Hand Tools.

The present invention relates to a guide or gauge for hand tools, and more particularly to certain improvements on the guide or gauge as shown in Letters Patent of the United States No. 1,317,126 granted to me on the 23rd day of September, 1919.

The object of the invention is to simplify the construction of such a gauge so as to permit of its being economically manufactured, and further, to provide means whereby the operation is rendered more positive, and to provide means whereby it may be locked to the tool so as to prevent its accidental disconnection therefrom during the operation of the tool, and further to provide a handle which may be adjusted relatively to the plane of the tool forming a convenient hand-hold at the forward end of the tool assisting in its manipulation.

To the above ends the present invention consists of the devices and combinations of devices which will be hereinafter described and claimed.

Like the improved gauge of my prior patent above referred to, the gauge is shown as connected to a triangular file employed in sharpening the teeth of a saw and it is intended to indicate not only the proper angular position of the file with relation to the vertical bevel of the teeth, but also the proper angular position of the file with relation to the lateral bevel of the teeth, such position being indicated by the position of the guide arms with relation to a horizontal plane or the plane of the points of the teeth of the saw, and also with relation to the plane of the blade of the saw.

The invention is illustrated in the accompanying drawings in which—

Figure 1 shows a top plan view of the gauge applied to a triangular file and in position to operate upon the teeth of a saw, a section of which is shown in plan view.

Figure 2 is an enlarged view showing the guide or gauge in perspective and with a portion of the file and the teeth of a saw illustrating the operation of the device.

Figure 3 is a top plan view of the gauge attached to the forward end of a triangular file, a portion of which is shown, with the adjustable parts at zero.

Figure 4 is a rear elevation of the gauge showing the file in cross-section.

Figure 5 is a vertical sectional view taken on the line 5—5 in Figure 4.

Figure 6 is a vertical sectional view taken on the line 6—6 in Figure 5.

Figure 7 is a vertical sectional view taken on the line 7—7 in Figure 5.

Figure 8 is a vertical sectional view taken through the means for locking the gauge to the end of the file.

Similar reference characters will be employed throughout the specification and drawings to designate corresponding parts.

In the drawings A represents a triangular file, B the saw, and C the handle of the file which may be formed of any suitable construction.

The gauge consists of a body portion 1 which may be made of metal and cylindrical in form, provided with the extended tubular section 2 in which is formed a chamber 3.

At its axis or center the body portion 1 is provided with a triangular recess 4 which extends horizontally and axially through the body portion 1, as shown in Figure 5.

As shown in Figure 4 the triangular recess is in form an equi-lateral triangle and has one of its lines arranged horizontally and uppermost with the apex at the base whereby when the parts are at zero, the triangular file when inserted in the triangular socket 4 will have one of its surfaces uppermost and extending in a plane parallel to the guide arms 12 as indicated in Figure 4.

The tubular extension 2 of the body portion 1 receives a cylindrical sleeve 5 which, as shown in Figure 5, is shorter than the tubular extension 2 and at one end fits against a shoulder 6 formed on the body portion 1. At its opposite end sleeve 5 is preferably beveled as shown at 7.

Within the chamber 3 body portion 1 is provided with a short cylindrical projection 8, located at the center thereof and in line with the opening 4 therein. This cylindrical projection 8 receives and supports a ring 9, the ring being sufficiently large so as to permit a slight movement of the

3942

D3



ring with relation to the projection 8 so that it may be freely turned about such projection.

5 The upper face of the sleeve is preferably flattened as shown at 10 forming a seat for the segmental portion 11 of the guide arm 12 which projects an equal distance beyond the segmental portion and in the plane thereof.

10 The segmental portion 11 is provided with an opening 13 through which passes a set screw 14, the threaded shank of which passes freely through the segmental portion 11 of the guide arm 12 and also passes 15 through a slot 15 in the tubular extension 2 of the body portion 1 and engages a threaded opening 16 in the ring 9.

By loosening the set screw 14 the sleeve 5, guide arm 12 and ring 9 may be held and the 20 body portion 1 turned right or left as desired, and by turning up the set screw 14 these parts are all clamped together and to the body portion 1. This provides for the axial adjustment of the file with relation to the 25 longitudinal line of the file and permits the upper horizontal surface of the file to be positioned with relation to the plane of the guide arm 12, and when positioned so that the file is tipped to the desired extent the set 30 screw 14 will hold the parts fixedly.

The guide arm 12 may be turned about the threaded shank of the set screw 14 so that it may be caused to extend transversely at varying angles to the longitudinal line of the 35 file and may be held in an adjusted position by means of the set screw 14 as indicated clearly in Figures 1 and 2 of the drawings.

Preferably the upper surface of the cylindrical extension 2 will be provided with a 40 scale mark 17, and the beveled edge 7 of the sleeve 5 with a scale 18 and the beveled edge 19 of the segmental portion 11 of the guide arm 12 will also be provided with a scale 20.

The relative adjustments are secured by 45 turning the sleeve 5 and the guide arm 12 so as to position the respective scales with relation to the mark 17 of the extension 2, thus as indicated in Figure 1, they have been so moved with relation to the mark 17 that the 50 file is angularly disposed not only with relation to the plane of the guide arm 12, but also with relation to a line extending parallel to the edge of the guide arm 12.

To fix the gauge or guide to the end of the 55 file there is provided a set screw 21 which is tapped into a threaded bearing 22 in the body portion 1 and in order to protect the file a loose block or follower 23 is positioned beneath the end of the screw 21 so that it 60 will rest upon the surface of the file and will receive the grinding action of the screw 21 upon its upper end instead of forcing the screw 21 directly in contact with the file. This will prevent all injury to the teeth of 65 the file.

In order to provide a handle at the forward end of the file, I have provided a knob 23^a which is provided with upper and lower curved seats 24. This handle or knob 23^a is provided with a cylindrical portion 25 fitting in the chamber 3 of the cylindrical projection 2 of the body portion 1 and is held therein by means of a set screw 26 which passes through a slot 27 formed in the tubular extension 2. 70 75

By loosening the set screw 26 the knob or handle 23^a may be turned axially so as to position its concave seats with relation to the plane of the guide arm 12 or in any other position best suited to the operator, and having 80 been positioned it is held in such position by the set screw 26.

It is thought that the operation of my improved guide or gauge will be sufficiently understood from the foregoing description 85 and that those skilled in the art will understand that the guide arm 12 may be adjusted so as to permit the file not only to engage the saw to produce the desired vertical angle, but also to produce the desired lateral 90 angle, and that when thus adjusted, providing the guide arm 12 is held parallel to the saw blade and also in a plane parallel to a line drawn along the points of the teeth, the desired cutting operation of the file will be 95 produced.

Having described my invention, I claim:

1. A guide or gauge for reciprocating hand tools, comprising a body portion, a tool receiving socket in one end thereof, a 100 cylindrical extension, a cylindrical boss within the extension, a circular clamping ring supported by the cylindrical boss, a sleeve surrounding the cylindrical extension, a guide arm seated on the sleeve and a set 105 screw passing through the guide arm, sleeve and cylindrical extension and engaging the ring within the cylindrical extension.

2. A guide or gauge for reciprocating hand tools, comprising a body portion, a 110 tool receiving socket in one end thereof, a cylindrical extension, a sleeve mounted on the extension, a guide arm supported on the sleeve, means to hold the parts in an assembled position, and co-operating scales carried by the cylindrical extension, sleeve and 115 guide arm to determine the relative positions of the parts.

3. A guide or gauge for reciprocating hand tools, comprising a body portion, a tool 120 receiving socket in one end thereof, a guide arm adjustably mounted on the body portion and adjustable in two directions with relation to the tool and means to detachably lock the tool in the socket of the body portion, said means embodying a set screw and a loosely held block or follower interposed between the bottom of the set screw and the 125 tool.

4. A guide or gauge for reciprocating 130

United States Patent [19]

Seiber

[11] Patent Number: 4,584,745

[45] **Date of Patent:** Apr. 29, 1986

[54] **DOUBLE ANGLED PRECISION FILE**

[76] Inventor: **Arvie I. Seiber, Redwood Creek,
Blue Lake, Calif. 95525**

[21] Appl. No.: 577,564

[22] Filed: Feb. 6, 1984

[51] Int. Cl.⁴ B23D 71/00

[52] U.S. Cl. 29/78

[58] **Field of Search** 29/78, 79

[56] References Cited

U.S. PATENT DOCUMENTS

633,523	9/1899	Lytle	29/78
2,687,562	8/1954	Noll	29/78

FOREIGN PATENT DOCUMENTS

524889 9/1921 France 29/78

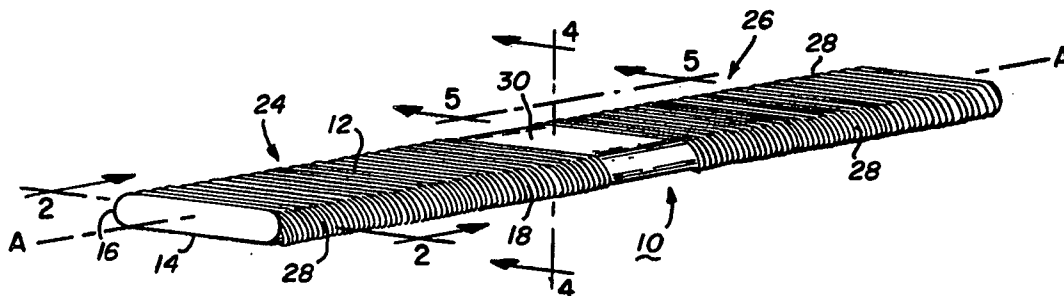
26410	7/1902	Switzerland	29/78
58256	1/1912	Switzerland	29/78

Primary Examiner—Leonidas Vlachos
Attorney, Agent, or Firm—Thomas E. Schatzel

[57] **ABSTRACT**

A precision file for sharpening saw teeth. The file includes a flattened oblong cross section for exact shaping of the saw teeth. Two sets of single cut teeth are cut into the file and extend over the file's longitudinal axis. A first set of teeth extends from a central lateral axis outward toward one end of the file, and a second set extends from the central axis outward towards the file's second end. The file is thus capable of an extensor cutting stroke using either end.

3 Claims, 6 Drawing Figures



DOUBLE ANGLED PRECISION FILE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to a file for cutting metal, and more particularly to a double angled precision file for sharpening chain saw teeth.

2. Description of the Prior Art

Metal files are currently available in a variety of shapes and with a number of teeth configurations for various metal cutting and shaping applications. Such files are classified according to their shape or cross section and according to their teeth pitch, spacing and cut. The shape or contour may be tapered or it may be uniform about the file's longitudinal axis. The latter shape is defined as blunt. Teeth configurations are designated as single or double cut, rasped or curved. The single cut file has teeth of a uniform size, angle and spacing. The cut depth is relatively shallow and the teeth are closely spaced which produces a smooth finish on the workpiece. Double cut files have two separate sets of teeth, one of which is typically of a coarser cut. Rasp and curved cut files have more deeply cut, wider spaced teeth and are designed for rapid removal of metal. Chain saw files typically are of rectangular, square, round or diamond-shaped sections and may be either double or single cut. The single cut is preferred as these files are used for finishing purposes, although a double cut file may also be employed for finishing purposes. The shape of the file is determined by the type of the chain saw blade to be sharpened; usually a round, hexagonal or triangular cross-section is employed.

Existing files include a cut portion extending approximately three-quarters of the file's length with the remaining uncut portion tapering into a shoulder and handle.

The filing action requires a length of the file to be pushed or drawn across the work. Usually a stroke of several inches is employed for a smooth finish. It is apparent that with existing files having an uncut handle, the handle and the adjacent cut portion will be unused in the filing motion. Because only the file's distal half is used on the work, this half wears out first, rendering the file unusable despite the remaining unworn portions. Even files which are fully cut are not fully utilizable for such precision work. This is because the cut is angled in one direction, and is uniform over the length of the file. The file is thus adapted for filing in one direction only and one cannot simply turn the file around and use the other half because the teeth will be running in the wrong direction. Sharpening chain saw teeth requires a precise stroke to attain the necessary smoothness and sharpness. Additionally, the relative hardness of the chain saw teeth tends to quickly wear a sharpening file.

None of the prior art has solved the problem of non-uniform wear in a precision chain saw sharpening file.

SUMMARY OF THE PRESENT INVENTION

It is therefore an object of the present invention to provide a file which may be utilized about a greater proportion of its surface area.

It is a further object of the present invention to provide a precision file specifically designed for sharpening chain saw teeth.

Briefly, a preferred embodiment of the present invention includes a flat metal blank having an elongated oblong cross section comprising an upper and a lower

flat surface, and two hemispherical side faces. A multiplicity of teeth are cut into the blank about each face and extend over substantially the entire length of the file. The teeth cut into the top and bottom flat surfaces are cut perpendicularly with the file's longitudinal axis and are parallel with each other. The teeth cut on each of the two hemispherical side faces are angled at an approximately twenty degree angle from the vertical. The file is divided about a central lateral axis into a front half and a back half. The teeth on each half are facing outward towards each end such that each half has a cutting stroke in the extensor direction.

It is an advantage of the present invention that the file is cut bidirectionally so that both ends may be used in a cutting stroke.

It is a further advantage that the file includes a plurality of faces for exact shaping of a workpiece.

It is an additional advantage that the teeth are angled to control clogging.

These and other objects and advantages of the present invention will no doubt become obvious to those of ordinary skill in the art after having read the following detailed description of the preferred embodiment which is illustrated in the various drawing figures.

IN THE DRAWINGS

FIG. 1 is a perspective view of a file of the present invention;

FIG. 2 is a front elevational view, taken along line 2-2 of FIG. 1;

FIG. 3 is a detailed side elevational view of the file of FIG. 1;

FIG. 4 is a partially sectioned perspective view, taken along line 4-4 of FIG. 1;

FIG. 5 is a top sectional view, taken along line 5-5 of FIG. 1; and

FIG. 6 is a detailed side elevational view of an alternative embodiment of the file of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 illustrates a file of the present invention and referred to by the general reference character 10. The file 10 includes an upper and a lower flat face 12 and 14, and a right and a left hemispherical side face 16 and 18. The file 10 is divided into a front half 24 and a back half 26. A multiplicity of single cut teeth 28 are cut into each face of each half 24 and 26. Intermediate to the two halves 24 and 26 containing the teeth 28 is a central uncut portion 30. The file 10 is uniform in contour and, for the particular embodiment used for sharpening chain saw blades, is approximately nine inches long, one-half an inch wide and one-eighth of an inch thick. The flattened oblong cross-sectional shape of the file 10 is illustrated in FIG. 2. The teeth 28 which are cut into the upper and lower flat faces 12 and 14 are perpendicular to a longitudinal axis A of the file 10 and are parallel with each other. The teeth 28 cut into the hemispherical side faces 16 and 18 are cut on an angle of approximately twenty degrees from a vertical axis. Each tooth 28 on each hemispherical side face 16 and 18 smoothly follows the contour of such face of the file 10 such that there are no sharp directional changes. The hemispherical shaping of the faces 16 and 18 allows for precise sharpening of a typical chisel-cut chainsaw, and the smooth and uniform angling of the teeth 28 cut into side faces 16 and 18 aids in controlling clogging. This an-