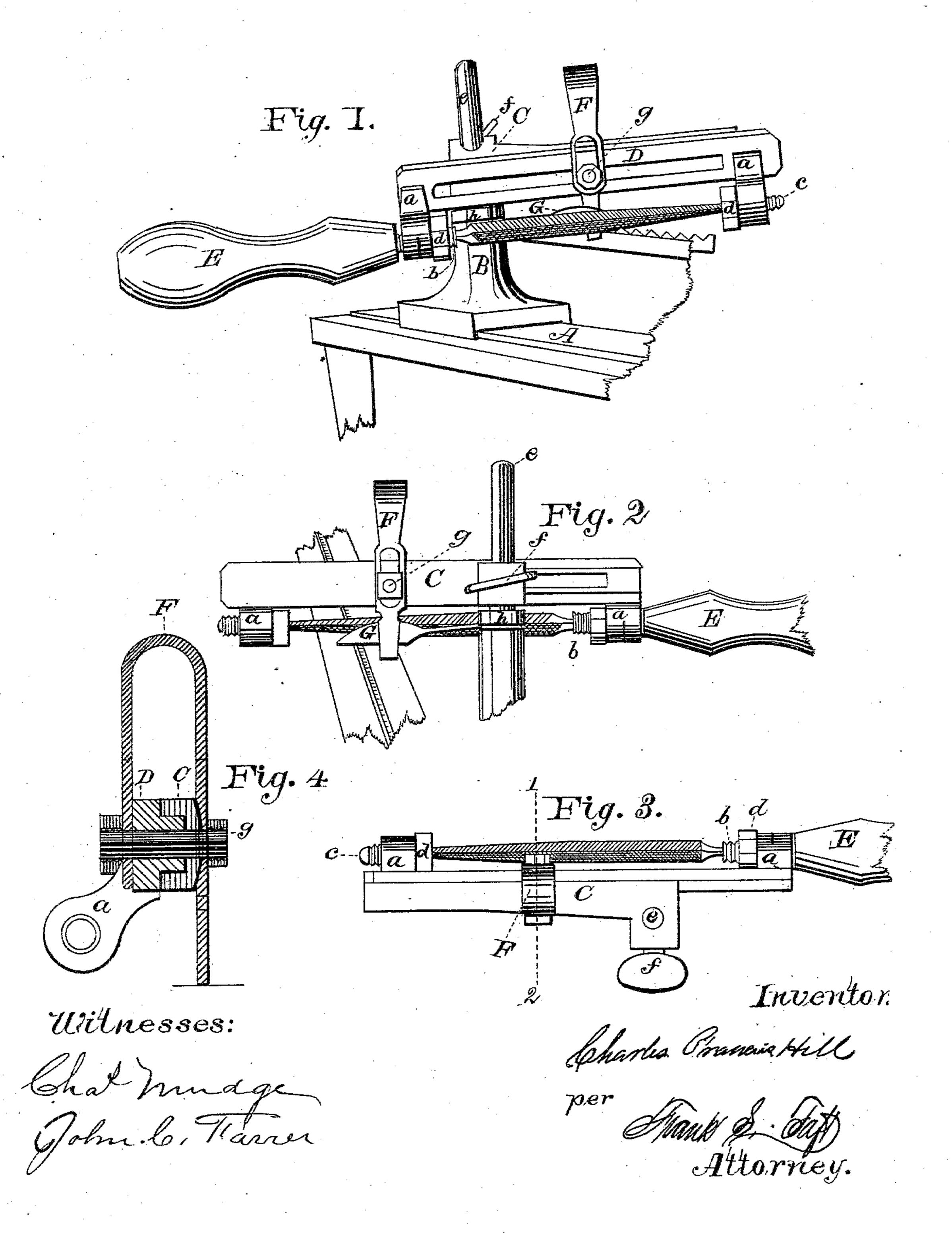
## C. F. HILL.

## SAW FILING MACHINE.

No. 283,393.

Patented Aug. 21, 1883.



l. PETER? Photo-Lithographer, Washington, D. C.

## United States Patent Office.

CHARLES F. HILL, OF PHELPS, NEW YORK.

## SAW-FILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,393, dated August 21, 1883.

Application filed November 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. HILL, a citizen of the United States, residing at Phelps, in the county of Ontario and State of New 5 York, have invented a new and useful Saw-Filing Machine, of which the following is a

specification.

My invention relates to improvements in saw-filing machines in which the file is adjust-10 able, and the objects of my improvements are, first, to afford facilities for the ready adjustment of the file to any pitch of teeth or angle required; second, to provide means for accurately gaging the distance and depth of cut be-15 tween teeth, which is particularly necessary in recutting old and worn saws; and, third, to facilitate the work by easing up the file on the backward stroke, and to render the device operative with equal facility by left as well as 20 by right handed persons. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire machine; Fig. 2, a perspective view of the ob-25 verse side of Fig. 1; Fig. 3, a top view of the same; and Fig. 4, a vertical section of a part

of the machine on the line 12, Fig. 3.

Similar letters refer to similar parts throughout the several views.

On a bench provided with movable jaws, in which the saw is secured, is laid a plate or track, A, parallel to the line of the saw, over which track rides an upright grooved stand-

ard, B, carrying a horizontal adjustable beam, 35 C, grooved its entire length to receive the tongued sliding frame D, which has hangers  $\alpha$ a at both ends, through which pass threaded bolts b c, provided with nuts d d.

To one end of the threaded bolt b is secured 40 a handle, E, the other end of said bolt being bored out sufficiently to allow of the introduction of the smaller or handle end of an ordinary three-cornered saw-file, the corresponding end of the bolt c having a similar opening

45 for the reception of the other end of the file. The most accurate adjustment of the file can be secured by the manipulation of the nuts ddand the swinging of the horizontal adjustable beam C on the shaft e of the standard B, and

50 securing the same in the desired position by the thumb-screw f. A bent slotted plate Fstraddles the beam C and the sliding frame D,

and holds the latter in position by means of a threaded bolt, g, and acts as a stop to the length of the stroke of the file, the frame D being slotted almost its entire length, as shown in Fig. 1. One end of the plate F terminates in a leg, which rests on one of the jaws which secures the saw, and regulates the depth of cut by being raised or lowered, and secured in the desired position by means of the threaded

bolt g and its accompanying nuts.

The gaging of the distances between teeth is accomplished by means of the adjustable spring-gage G, through one end of which is a hole corresponding to the circumference of the shaft e, previously referred to, being secured in the desired position by a nut, h, the shaft being threaded at that point for the purpose. The spring-gage G is turned for about half its length, so as to present a knife-edge, which fits into the spaces between the teeth of the saw, and when in use occupies a position between the leg of the bent slotted plate F and the file. The distance between the file and the gage determines the dimensions of the base of the tooth. It is plain to be seen that when the first cut is made and the file is shifted to make the next cut the gage, taking the place just vacated by the file, both being secured at a previously determined distance apart, must of necessity space the distance between said gage and file at each succeeding shift to completion. Both gage and file, being adjustably attached to the standard B, move with the said standard as it slides along the track A, which it does at the completion of each tooth. The file does not touch the work until the downward pressure necessary to propel the said file is applied, which pressure also causes a slight tilting of the entire machine toward the saw, when the spring-gage G, being at this juncture the only impinging point, gives until stopped by the leg of the bent plate F striking the jaw below when the determined depth of cut is reached, as previously described, and on the removal of pressure from the handle of the file reacts and throws up the tool on the backward stroke.

While I do not confine myself to stationary hangers in which to secure the tool in use, I prefer that method as being at present the best adapted for the purposes for which my machines are constructed.

opis or the analysis of the Angles is a south the contract of a finite with instantial instantable of

and the first for the second of the property of the forest of the first of the second of the second of the file

人名英国英格兰人名英格兰姓氏 医生物 医二种植物 医皮肤 医水体 的复数 医二种 医乳腺 医乳腺 医乳腺 医乳腺 医乳腺 医二氏性病 医皮肤病 经收益 医精神病 医动物

,一点是我们的自己的人,但是我就要有这种的人,我的身体的一点,我们一点,我们一点,我们一点,他们一样的一样的人,我们也有一个**找这**样的。这个我们也

文字 医周围 "你一点,我们还是不是一样的,我的人,我们是一种的人的人,我们不知道,我们不知道,不是一点的。""我们,我们是我们,我们是我们的人,我们就是我们

,我们就是一个大学的,我们就是一个大学的一个人,我们就是一个人的,我们就是一个人的人的人,我们也不会一个人的人,我们就是一个人的人的人,我们就没有一个人的人,就

and the first of the

也是感觉到这种的现在分词,我们的自己的重要的自己的特殊的一个,我们的自己的特别的一个,这种自己的特别的,这是<del>他的人,这是他的人的</del>的数据是不是的。

la tradición de acompanyo a significación de agon, interación de la competitor, a competitor de forma

,一个人的,我们就是我们的"人,我也没有的,我们就是我的,我们的"我们的"的"我们"的"我们"的"我们"的"我们"的"我们",我们说道:"我们说是我们是我们的

ng talong kan mengalak kan dibi dalam kembang menghapan benggalah di kembana kembana di penghabah di kan dibid

"你还没有,我们就没有一个的,我们就是一个事情,我们就是一个一个人的人的人,我们就会看到一个人,我们就会看到了一个人,我们就是一个人,我们就是一个人的人,我们

Between the anti-content of the first of the property of the temper between the content of the first of the fi

and the control of the section of th

na versione de la completación de la completación de la final de la completación de la completación de la comp La completación de la completación

"我们,我们就是一个大家的人,我们就是我的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是一个大家的人。""我们就是我们的人,我们就是一个大 "我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们就是我们的

为,我们就是这一次<del>是一个点头的的现在分词,这个针</del>的一个对方的<del>,</del>,我们就不是一个人的,我们就是一个人的,我们就是一个人的,我们就是一个人的。"

大声道,只见一个大声,一句说道:"你说,我想有一个人,我就是这个人,我们是我的人,我就把一点一个人,我们也不是一个人的人,我们就会不会<mark>,我们就是一个人,</mark>这个人,

,是我们的一个人,我们的我们的我们的我们的一个人,我们也不是一个人,我们的一个人,这种一个人的人,我**这**是一个人,我们就是一个人,我们们的人,我们就是一个人。

,我就会不是现在我的经验的现在分词,但不是现在的特殊,但是不是一个人的,但是不是一个人的。""我,我们就是我们的人的,我们就是不是一个人的人。""我们就是我的

文章:"我们,我们们还是不是一个,我们就是一个人的,我们是一个人的。""我们是一个人的事情,我们是一个人的事情,我们是一个人的事情,我们是一个人的人,我们就是

一种是一个人类的现在分词,我们们的数,这个对对对对,就们有关的的简单的一个人。这样,这个人对手的感染的一种情况,如此的数据基础。

美国内部建筑中国的人,可可以的特殊的一种,1811年(1911年),1911年(1911年),1911年(1911年),1911年(1911年),1911年(1911年),1911年(1911年),1911年)

"最后,我们就是一个大大的,我们就是一个人,我们就是一个人,我们就是一个人的人,我们也不是一个人的人,我们就是一个人的人,我们就会不会一个人的人。" "我们就是我们,我们就是一个人的人,我们就是一个人的人,我们就是一个人的人的人,我们就是一个人的人,我们就是一个人的人,我们就会不是一个人的人,我们就会不是一个

B. 最大的主义的主义的主义, 1966年11月1日,1967年11月1日,1967年11月1日,1967年11月1日,1967年11月1日,1967年11月1日,1967年11月1日,1967年11月1日,1967年1

in interpretation of the engine of the pretable in the relation of the protection of the principal section of

,我们就是一个大型的,我们们的一点一点,我们就是一个一个一个一个一个人,我们就是一个我们的人,我们就是一个人的人。""我们,我们们也不是一个一个人。""我们们也

di perilika kating kalaban dan peringgan peringgan peringgan kating berapakan katinggan peringgan peringgan pe

n was file and Mary his had been him to great as for a language being and to be kind of the file.

en de la light de la completation de la completatio

I am aware that prior to my invention sawfiling machines have been made with adjustable files. I therefore do not claim that feature, broadly; but

What I do claim as my invention, and desire

to secure by Letters Patent, is—

1. The combination, in a saw-filing machine, of a grooved standard, B, adapted to a track or plate, A, the swinging adjustable beam C, with a slotted sliding frame, D, having hangers a a, hollow threaded bolts b, screw-bolt c, and nuts d d, substantially as shown, for the purpose specified.

2. The combination, with the beam C and frame D, of the bent slotted plate F, adjusta- 15 ble by means of a threaded bolt, g, and nut, and having terminal leg, substantially as set forth.

3. The adjustable spring-gage G, attached to the threaded shaft e and secured by the nut 20 h, as shown, for the purpose specified.

CHARLES F. HILL.

COMMEND A SUMBLE OF SUMBLE DATE

Witnesses:
CHAS. MUDGE,
JOHN C. FARRER.