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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Bogotá, D.C.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 07-010383- -00003-0000

Fecha: 2008-06-26 14:36:12 Dep. 2020 NUECREACIONE
Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 538 PETICION Folios: 2

Re.: Expediente No. 07 10.383
Fase Nacional Solicitud de Patente PCT
a nombre de
SYNTHESES GmbH
Código 011 - 378 - 538

En relación con la solicitud contenida en el Expediente de la referencia y, en particular, con la publicación del extracto de la misma en la Gaceta de la Propiedad Industrial No. 587 de 18 de Enero de 2008, por medio del presente escrito muy respetuosamente me permito solicitarle se sirva proceder a efectuar el **EXAMEN DE PATENTABILIDAD** de la solicitud aquí contenida.

Para tal efecto, acompaño el comprobante de pago por concepto de la tasa respectiva, Recibo No. 57,163

De Usted Atentamente,


LUIS FELIPE CASTILLO GIBSON
T.P. # 68.995 del C.S.J.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT.: 800176089-2

RECIBO OFICIAL DE CAJA : 08 - 51,163
 FECHA : JUNIO 26 DE 2008

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***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
CASTILLO BRAU Y ASOCIADOS	CONSIGNACION	BANCO DE BOGOTA	062754387	67620	26/06/2008	103,000.00
CASTILLO BRAU Y ASOCIADOS	CONSIGNACION	BANCO DE BOGOTA	062754387	72752	26/06/2008	2,274,000.00
CASTILLO BRAU Y ASOCIADOS	CONSIGNACION	BANCO DE BOGOTA	062754387	2546120	26/06/2008	2,520,000.00

***** CONCEPTO *****

CANT.	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01 SOLICITUDES	
	B5 EXAMEN DE PATENTABILIDAD DE INVEN	420,000.00
	TOTAL :	\$ 420,000.00

DIN: CUATROCIENTOS VEINTE MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 07-10383

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **587** DE

FECHA **18 DE ENERO DE 2008** EL TÉRMINO HÁBIL SEÑALADO POR LA LEY

EXPIRA EL **16 DE ABRIL DE 2008**

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO X



US006551316B1

(12) **United States Patent**
Rinner et al.

(10) **Patent No.:** **US 6,551,316 B1**
(45) Date of Patent: **Apr. 22, 2003**

(54) **SELECTIVE COMPRESSION AND
DISTRACTION INSTRUMENT**

(75) Inventors: **James A. Rinner**, Racine, WI (US);
Michael A. Jordan, Racine, WI (US)

(73) Assignee: **Beere Precision Medical Instruments,
Inc.**, Kenosha, WI (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

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* cited by examiner

(21) Appl. No.: **09/796,410**

(22) Filed: **Mar. 2, 2001**

(51) Int. Cl.⁷ **A61B 17/66**

(52) U.S. Cl. **606/57; 606/205; 81/427.5;**
81/423; 81/352

(58) **Field of Search** **606/205-208,**
606/53, 57, 90, 99, 105, 55, 58; 600/216,
218, 219, 222; 81/427.5, 423, 352-354,
362

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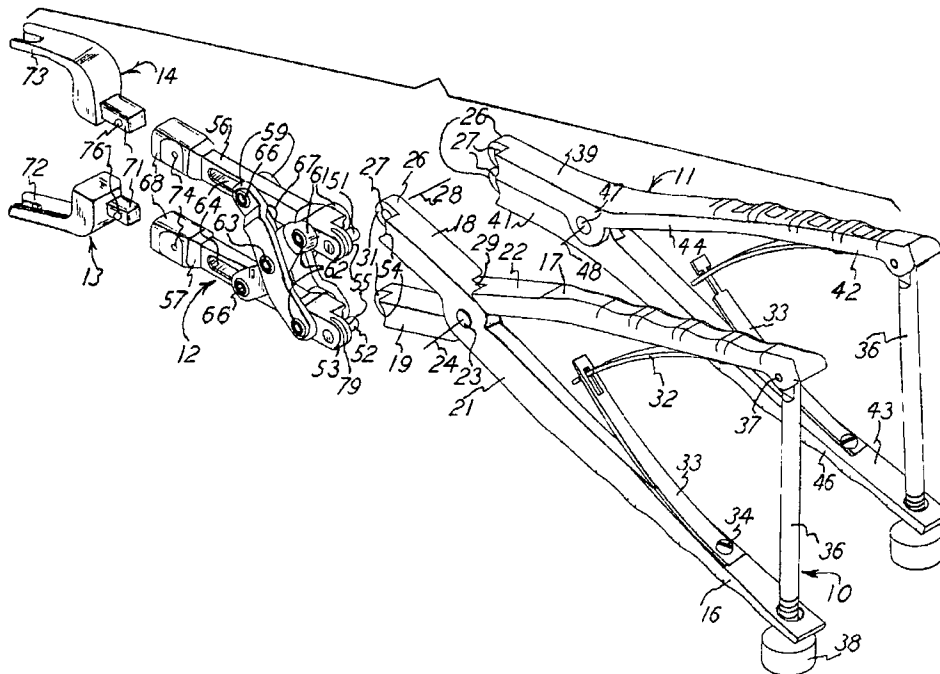
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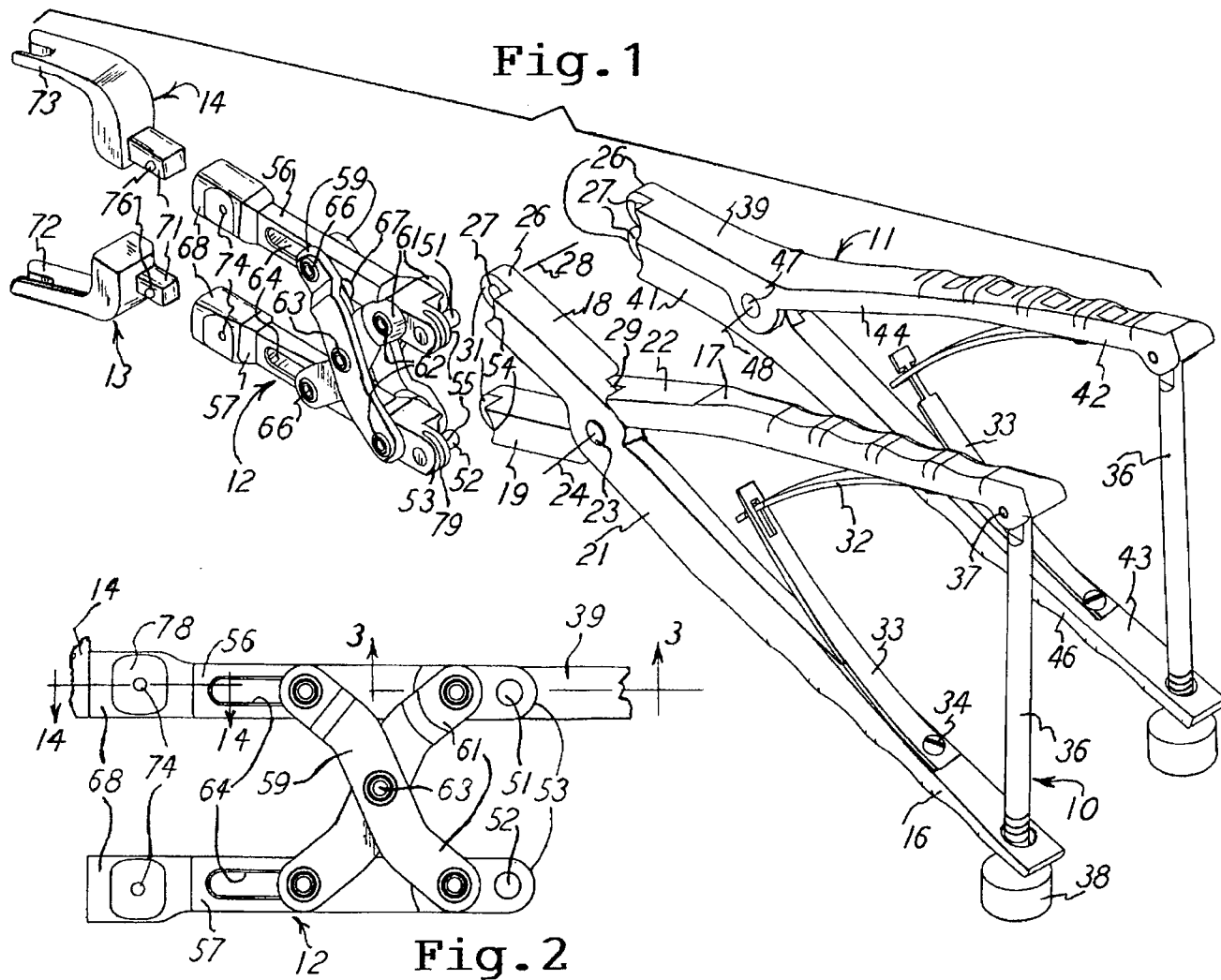
Primary Examiner—Kevin Shaver
Assistant Examiner—Michael B. Priddy
(74) *Attorney, Agent, or Firm*—Arthur J. Hansmann

(57) **ABSTRACT**

A selective compression and distraction instrument useful in manipulating bone, such as a person's spine during surgery. There are two handle sections and one jaw section. One handle section produces a compression action and the other produces a distraction action. The user determines which action to apply, and then selects the appropriate handle section which is releasably attached to the one jaw section. The jaw section is arranged to have two tips, and the jaw section moves the tips in a parallel relationship toward and away relative to each other. The tips are releasably and interchangeably attachable to the jaw section, and they provide selective spacing of tip blades from each other.

27 Claims, 3 Drawing Sheets





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SELECTIVE COMPRESSION AND DISTRACTION INSTRUMENT

This invention relates to a selective compression and distraction instrument which is useful in manipulating bones in a human, particularly in manipulating the spine of a person, such as in surgical procedures. Such manipulation may occur through direct contact of the bone with the instrument, or by devices attached to the bone, such as implants.

BACKGROUND OF THE INVENTION

The prior art is already aware of instruments for compressing and distracting bones or the like, and that prior art is cited herein. Those instruments include a scissors-type arrangement which the user can squeeze to apply the desired force to the bones. One end of each of those instruments has a handle and the opposite end has a jaw for contacting the bones. In one prior art instance, one instrument is useful for both the compression and the distraction force application, and that is shown in my U.S. Pat. No. 6,017,342, entitled Compression and Distraction Instrument.

The present invention provides another instrument arrangement for applying both compression and distraction forces. My aforesaid patent and the present invention both provide for several improvements over the known prior art, and the present invention provides an arrangement wherein surgeons and like users have another variation for the procedure of compressing and distracting bones or other work-pieces. The advantages of my aforesaid patented instrument are also inherent in the present invention.

The instrument of the present invention is in the form of a multi-piece kit which includes two handle sections and one jaw section which is optionally and alternately attached to a selective one of the two handle sections. One handle section is used for compression and the other handle section is used for distraction, so each completed instrument assembly serves its specific purpose and is simplified in configuration.

The selective assembly of either of the two handle sections to a jaw section, as mentioned herein, is quickly and easily accomplished and can be immediately accomplished by the user in the process of preparing the instrument. The attachment of the selected one of the two handle sections results in a sturdy and secure instrument for the required precision of surgery or the like.

Also, the desired action of parallel movement of the bone-engaging jaws is attained by this invention. That is, the two jaws which move relative to each other do so in an orientation wherein the two jaws are and remain in an orientation parallel to each other.

In addition to the one jaw section serving the two handle sections, there are two removably attached jaw tips or fingers which quickly and firmly can be attached to the jaw section itself. Further, those two jaw tips or fingers are releasably attachable in the jaw section and are interchangeable so they can be selectively presented to the work-piece in a plurality of relationships. That is, they can be selectively angularly positioned, variously spaced apart, or like positioning relative to each other and to the handle section itself, all for the user's selected purpose.

The jaws are secured to the jaw section in a connection which is not inadvertently releaseable but instead responds only to an intentional action of releasing. That enhances the appeal of the feature of providing these interchangeable jaws which suit the particularly function being performed.

A method of selectively providing either a compressor or distractor instrument is a part of this invention.

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BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded perspective view of the instrument of this invention.

FIG. 2 is a left side elevational view of a fragment of the showing in FIG. 1.

FIG. 3 is an inverted enlarged section view taken along the plane designated 3—3 on FIG. 2.

FIG. 4 is a perspective view of a tip part seen in FIG. 1.

FIGS. 5, 6, and 7, are right side elevational, left end elevational, and top plan views, respectively, of FIG. 4.

FIG. 8 is an enlarged section view taken along the plane designated 8—8 on FIG. 6.

FIG. 9 is a perspective view of a tip part seen in FIG. 1.

FIGS. 10, 11, and 12 are right side elevational, left end elevational, and top plan views, respectively, of FIG. 9.

FIG. 13 is an enlarged section view taken along the plane designated 13—13 of FIG. 11.

FIG. 14 is an enlarged section view taken along the plane designated 14—14 in FIG. 2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT AND METHOD

The instrument of this invention is shown in a plurality of sections which include two handle sections 10 and 11 and a jaw section 12. The handle sections 10 and 11 have unique operational actions which differ from each other, and they are separately and alternately releasably attached with the jaw section 12. There is only one jaw section 12 and it has two jaws or tips 13 and 14 releasably attachable thereto, as indicated.

The handle section 10 has two hand-grippable portions 16 and 17 arranged to be squeezed by the surgeon or other user. The handle section 10 also has two jaw portions 18 and 19, and the portions 16 and 18 exist as one integral and elongated piece 21, as shown, and the portions 17 and 19 also exist as one integral and elongated piece 22. Those two pieces 21 and 22 are pivotally joined together by a pivot pin 23 which presents a pivot axis 24.

The ends of the handle jaws 18 and 19 each have a projection 26 which is offset to the right, as viewed in FIG. 1, and each projection 26 presents a pin hole 27 which is disposed with its longitudinal axis parallel to the pivot axis 24, as indicated at 28. It will also be noticed that the two pieces 21 and 22 are nested together to overlap each other, as shown at 29, and they thereby present the two end surfaces 31 of the projections 26 on the center plane which extends along the length of the two pieces 21 and 22.

The handle sections 10 and 11 also have resilient means, such as the leaf springs 32 and 33 which are suitably connected to the handle portions 16 and 17, such as by screws, like the shown screw 34. Thus, in the handle section 10, the handle portions 16 and 17, and likewise with the handle section 11, are spring-urged away from each other. Of course, the user's hand squeezing on the respective handle portions is then against the force of the springs 32 and 33.

Also in each handle section 10 and 11 there is an adjustable limiter tension rod 36 which is pivoted on a pin 37 on the handle portion 17, and there is a nut 38 threadedly engaged with the rod 36 to abut handle portion 16. The respective rods 36 operate against the urging of the springs 32 and 33 and thereby restrict the opening of the handle portions, and that therefore also results in the user being able to set the nut 38 along the rod 36 to thereby retain the position of the handle portions relative to each other, such as