



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

January 31, 2011

Stephen Dresnick
Chairman and Chief Executive Officer
Internal Fixation Systems, Inc.
5901 SW 74th Street, Suite 408
South Miami, FL 33143

Re: Internal Fixation Systems, Inc.
Amended Registration Statement on Form S-1
Filed January 14, 2011
File No. 333-170008

Dear Mr. Dresnick:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

If we are unable to successfully..., page 3

1. Please add or expand appropriate risk factors to discuss any risk(s) related to extending your business to support screw and plate medical procedures. For instance, are these procedures more complicated and risky than bone fixation procedures involving screws only? Are you aware of specific risks related to the manufacture of the plates or the supply of the raw materials needed? Do you currently have the expertise to expand to this market? Please revise accordingly.

We may incur additional indebtedness..., page 7

2. We note that you filed exhibit 10.13 in response to our prior comment 5. The agreement purports to terminate the shareholders' agreement "in all respects other than as it relates to

the issuance of shares of common stock of the Company thereunder.” The meaning of this language is unclear. Please advise.

3. In addition, we note that the termination agreement indicates that Schedule A shall survive termination. It is unclear how Schedule A survives termination of the shareholders’ agreement and what binding effect it is intended to have. Please advise.

Industry Overview, page 16

4. We note your response to prior comment 7; however, the first two sentences of your response appear to be contradictory. Further, we note that you have not described the steps you have taken to ensure that the information in the prospectus remains accurate. Therefore, we reissue prior comment 7.

Competition, page 18

5. With a view to disclosure, please quantify the time savings (relative to an unmodified CNC Swiss-Turn machine) that you have achieved as a result of your proprietary custom programming.

Sale of Unregistered Securities, page 20

6. We note your response to prior comment 9; however, revisions should be made throughout the document as appropriate to ensure consistency. Therefore, we reissue the prior comment. Revise this section accordingly.

Management’s Discussion and Analysis or Plan of Operation, page 22

Critical Accounting Policies, page 22

7. Refer to our prior comment 11. Please tell us why your revised disclosure on page 23 in response to our prior comment indicates “this estimate will affect both Accounts Receivables as well as Revenue”. It is not clear to us why the referenced estimate would impact revenues.

Results of Operations, page 24

8. We note that in your revised discussion of the reasons for your inventory increase you state that you put surgical sets of approximately 700 screws in the field. Please revise the description in your business section to describe clearly how you distribute your product, including the distribution of sets of screws.

Liquidity and Capital Resources, page 25

9. We note your response to prior comment 10. However, your disclosure in the second paragraph of this section appears to suggest that you expect to raise \$500,000 in this offering. Please advise or revise to clarify.

Directors, Executive Officers..., page 26

10. With a view to disclosure, please tell us more about the anticipated role and composition of the advisory board.

Executive Compensation, page 29

11. Please revise throughout the filing to ensure that the prospectus contains updated disclosure. For example, and without limitation, please update this section to provide the information required by Item 402 of Regulation S-K as of your most recently completed fiscal period.

Selling Security Holders, page 33

12. With a view to disclosure, please tell us whether the consideration paid for the shares held by each selling shareholder was cash, services or both; whether such consideration has been fully paid; each selling shareholder's relationship to the company; and any other material terms of the transaction. Please ensure that this information reconciles with your disclosure on page 20 and in Item 15 on page II-1. Also, if there are any written agreements related to these transactions, please file them as exhibits or tell us why you believe it is unnecessary.
13. Tell us how you determined that the percentage of your shares held by non-affiliates that are being registered is 8.5%.

Plan of Distribution, page 34

14. Revise to clarify that selling shareholders will sell at a fixed price of \$2.00 per share until your shares are quoted on the OTCBB.

Certain Relationships and Related Transactions, page 35

15. Please reconcile your disclosure in this section regarding the various loans you have received with the amounts set forth in exhibits 4.1 and 4.2 and your disclosure under Liquidity and Capital Resources (including your statement in the first sentence of that section that your proceeds were primarily derived from loans from unrelated third parties). In this regard, to the extent that certain loans were extended, paid off or replaced by warrants or debentures, revise accordingly.

16. Your reference in the first paragraph of this section to an outstanding loan in the amount of \$185,000 is unclear. Please clarify, if true, that the loan to which you refer was made by a former shareholder to the company in May 2009 to cover certain operating expenses. In addition, we note that the same loan appears to be described multiple times in this section. Please advise and revise, as necessary, to consolidate your disclosure.
17. Please clarify whether execution by the company of certain sub-lease agreements was a term of your separation agreement with your former shareholder.
18. Please disclose the milestones or call features related to your loans or promissory notes. For instance, we note your reference to revenue milestones related to the loan from Esteban Hernandez.
19. We note your disclosure regarding the loans from Stephen Dresnick. Revise to clarify the status of the \$100,000 promissory note. Your current disclosure suggests that this amount was due within fifteen days of October 31, 2010.
20. Revise the disclosure in the fourth paragraph on page 36 to identify the shareholder and the surgical facilities referenced and to disclose whether the shareholder remains affiliated with you and the surgical center.

Recent Sales of Unregistered Securities, page II-1

21. Please tell us why you have not included the convertible debentures filed as exhibit 4.2 in your disclosure in this section.

Exhibit 5.1

22. Please provide an updated opinion to reflect the current size of your proposed offering.

Exhibit 23.1

23. Please tell us why the name of the auditor that signed this consent, "Mallah Furman", is not the same as the name of the auditor that signed the audit report included in the filing. Also, tell us why the auditor's consent refers to amendment 1 rather than amendment 2. We note that this consent is filed as an exhibit in amendment 2 to this Form S-1.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Stephen Dresnick
Internal Fixation Systems, Inc.
January 31, 2011
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You may contact Dennis Hult at (202) 551-3618 or Jay Webb, Staff Accountant, at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan at (202) 551-3269 or Daniel Morris, Special Counsel, at (202) 551-3314 with any other questions.

Sincerely,

Amanda Ravitz
Assistant Director

cc (by facsimile): Hank Gracin, Esq.